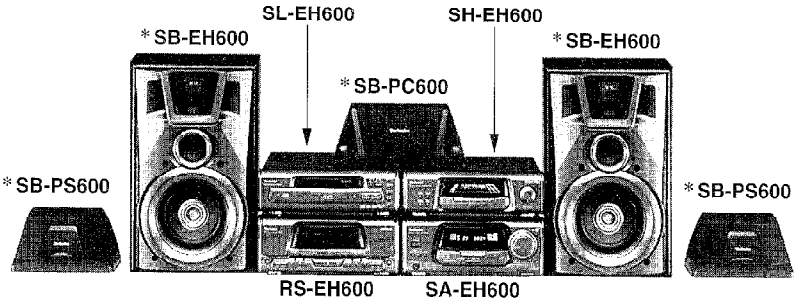
ORDER NO. AD9803053C3

Service Manual

Tuner/Amplifier

Tuner/Amplifier

SA-EH600



Colour
(H) ..... Gray Type

Areas
(GC) ..... Asia, Latin America, Middle East and Africa.
(GN) ..... New Zealand and Australia.

System	SC-EH600
Sound Processor	SH-EH600
Tuner / Amplifier	**SA-EH600**
CD Changer	SL-EH600
Cassette Deck	RS-FH600
Front Speakers*	SB-EH600
Center Speaker*	SB-PC600
Surround Speakers*	SB-PS600

*: Made in Singapore

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Specifications

Amplifier Section

Power output :	
DIN 1 kHz, THD 1%, both channels driven ;	2 × 70 W(6 Ω)
RMS 1 kHz, THD 10%, both channels driven ;	2 × 100 W(6 Ω)
PRO LOGIC mode (at HIGH terminal):	
DIN 1 kHz, THD 1%	
MAIN (both channels driven) ;	2 × 50 W(6 Ω)
SURROUND ;	50 W(4 Ω + 4 Ω)
CENTER ;	50 W(8 Ω)
RMS 1 kHz, THD 10%	
MAIN (both channels driven) ;	2 × 70 W(6 Ω)
SURROUND ;	70 W(4 Ω + 4 Ω)
CENTER ;	70 W(8 Ω)
PMPO 1 kHz :	2800 W
	(MAIN 6 Ω, CENT. 8 Ω, SURR. 4 Ω + 4 Ω)
Total harmonic distortion :	
Rated power at 1 kHz ;	1 %(6 Ω)
Half power at 1 kHz ;	0.09 %(6 Ω)
Load impedance :	
MAIN (HIGH/LOW) ;	total impedance 6 Ω
SURROUND ;	4 – 8 Ω
CENTER ;	8 Ω
Input sensitivity/impedance:	
PHONO ;	2.5 mV/47 kΩ
EXTERNAL ;	250 mV/15 kΩ
Output level:	
EXTERNAL RECOUT ;	250 mV/1.5 kΩ
S.WOOFER :	
Center frequency ;	70 Hz
LEVEL (VOL –20 dB) MID	+8 dB
MAX	+ 12 dB

FM Tuner Section

Frequency range ;	87.50 – 108.00 MHz (0.05 MHz steps)
Sensitivity ;	1.8 µV (IHF usable)
S/N 26 dB ;	1.5 µV
S/N MONO ;	70 dB (75 dB, IHF)
Antenna terminal(s) ;	75 Ω (unbalanced)

AM Tuner Section

Frequency range:	522 – 1611 kHz (9 kHz steps)
	530 – 1620 kHz (10 kHz steps)
Sensitivity (S/N 20 dB) ;	500 µV/m

Timer Section

Clock :	Quartz-lock type
Functions :	Play timer (1 time), REC timer (1 time), Sleep (120 min, 30 min intervals)
Setting :	1 minute – 23 hours 59 minutes (1 min intervals)

General

Power supply :	
for (GC) area ;	AC 110/127/220/230–240 V, 50/60 Hz
for (GN) area ;	AC 230 V, 50 Hz
Power consumption :	205 W
Dimensions :	287 (W) × 118.5 (H) × 343.5 (D) mm
Weight :	5.0 kg

Notes: Specifications are subject to change without notice.
Weight and dimensions are approximate.

⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

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Before Repair

(1) Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702, C703 and C704) in order to discharge the voltage.
(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110 V or 240 V.

Area	(GC)		(GN)
Power supply voltage	AC 110 V	AC 240 V	AC 240 V
Consumed current 50 Hz	260 ~ 800 mA	130 ~ 400 mA	140 ~ 400 mA

Protection Circuitry

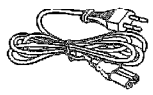
The protection circuitry may have operated if either of the following conditions is noticed:
* No sound is heard when the power is switched ON.
* Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:
1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

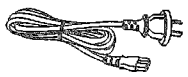
Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

Accessories

- **AC power supply cord**
  for (GC) area : (RJA0019-X) ..... 1 pc.

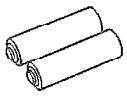


  for (GN) area : (RJA0035-K) ..... 1 pc.

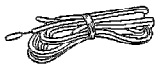


- **Remote control transmitter**
  (RAK-CH219WH) ..... 1 pc.

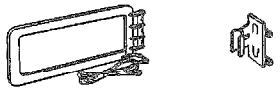
- **Batteries**
  (UM-4, "AAA", R03) ..... 2 pcs.
  Note: These are available on sales route.



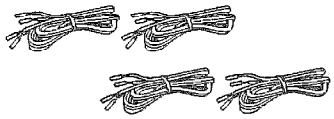
- **FM indoor antenna**
  (RSA0006) ..... 1 pc.



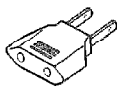
- **AM loop antenna**
  (RSA0022-J) ..... 1pc.



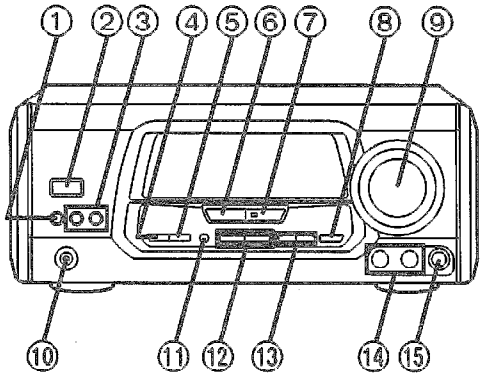
- **Speaker cords**
  (REE0393) ..... 2 pcs.
  (REE0853) ..... 2 pcs.



- **Power plug adaptor [(GC) area only]**
  (SJP5213-1) ..... 1 pc.



■ Location of Controls



① **Clock/timer button (CLOCK/TIMER)**

② **Power "STANDBY ⏻/ON" switch (POWER, STANDBY ⏻/ON)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

③ **Timer on/off buttons (◴ PLAY, ◴ REC)**

④ **Tuning mode select button (TUNING MODE)**

⑤ **Set button (SET)**

⑥ **Source input select button (INPUT SELECTOR)**

⑦ **Tuner/band select button and indicator (TUNER/BAND)**

⑧ **Super woofer button (S.WOOFER)**

⑨ **Volume control (VOLUME)**

⑩ **Headphones jack (PHONES)**

⑪ **FM mode select button (FM AUTO/MONO)**

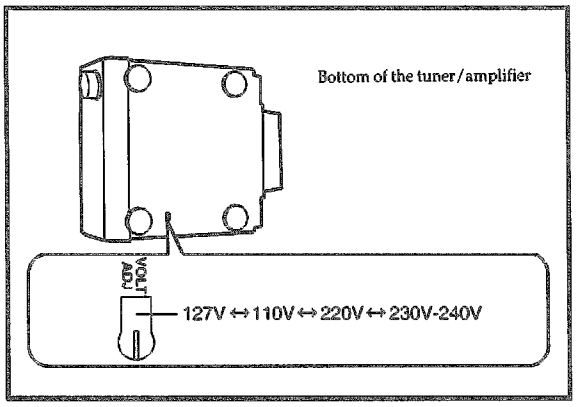
⑫ **Tuning buttons (∨, ∧ TUNING)**

⑬ **KARAOKE and echo buttons (KARAOKE, ECHO)**

⑭ **Microphone jacks (MIC, 1, 2)**

⑮ **Microphone volume control (MIC VOL)**

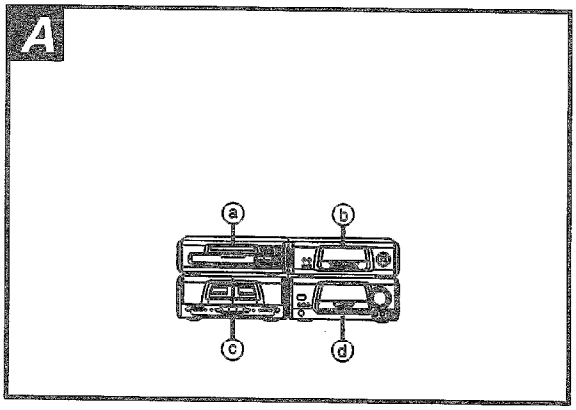
■ Adjusting the Voltage Selector for (GC) area.

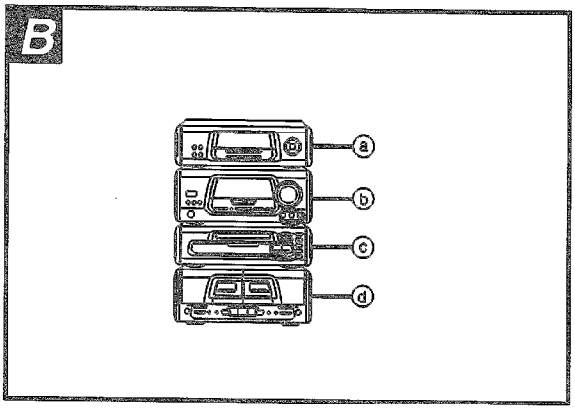


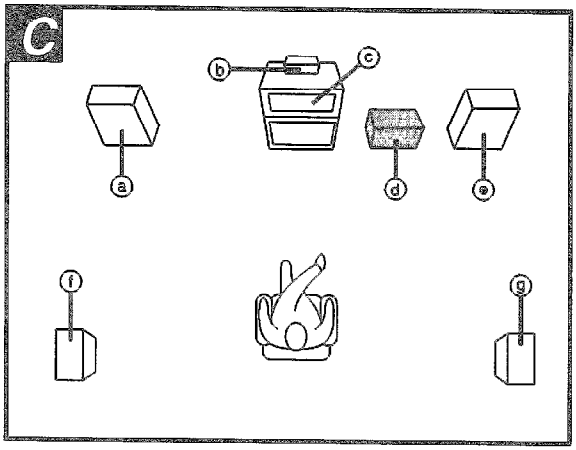
Be sure to disconnect the mains cord before adjusting the voltage selector.
Use a minus (−) screwdriver to set the voltage selector (on the bottom of the tuner/amplifier) to the voltage setting of the area in which the unit will be used.
If the power supply in your area is 115 V or 120 V, please set the voltage selector as follows:
- For 115 V: set to 110 V
- For 120 V: set to 127 V

Note that this unit will be seriously damaged if this setting is not made correctly.

Installation







Locating the components

Side-by-side set-up A

ⓐ CD changer (SL-EH600)
ⓑ Sound processor (SH-EH600)
ⓒ Cassette deck (RS-EH600)
ⓓ Tuner/amplifier (SA-EH600)

Stacking B

ⓐ Sound processor (SH-EH600)
ⓑ Tuner/amplifier (SA-EH600)
ⓒ CD changer (SL-EH600)
ⓓ Cassette deck (RS-EH600)

Placement of speakers C

As well as enjoying normal stereo reproduction with the left and right front speakers, a center speaker and surround speakers can also be connected to the unit in order to enjoy the sound performance of DOLBY PRO LOGIC Systems.

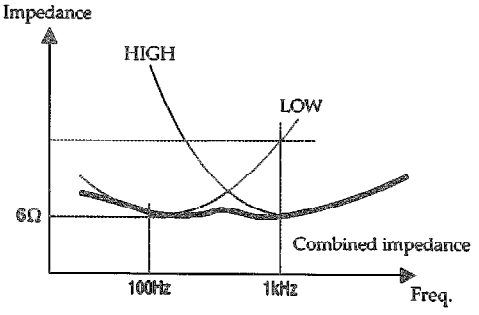
We recommend that surround speakers be placed on the side of or slightly behind the listener, and about one meter higher than ear level.
However the position should be adjusted to your personal preference, because the effect varies to some degree depending upon the type of music and the music source.

ⓐ Front speaker (Left) (SB-EH600)
ⓑ Center speaker (SB-PC600)
ⓒ TV (not included)
ⓓ This system
ⓔ Front speaker (Right) (SB-EH600)
ⓕ Surround speaker (Left) (SB-PS600)
ⓖ Surround speaker (Right) (SB-PS600)

Speaker Caution

Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speaker, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.

When speakers are connected to the LOW and HIGH terminals on the back of the main unit
They are designed to have a combined impedance of 6Ω.

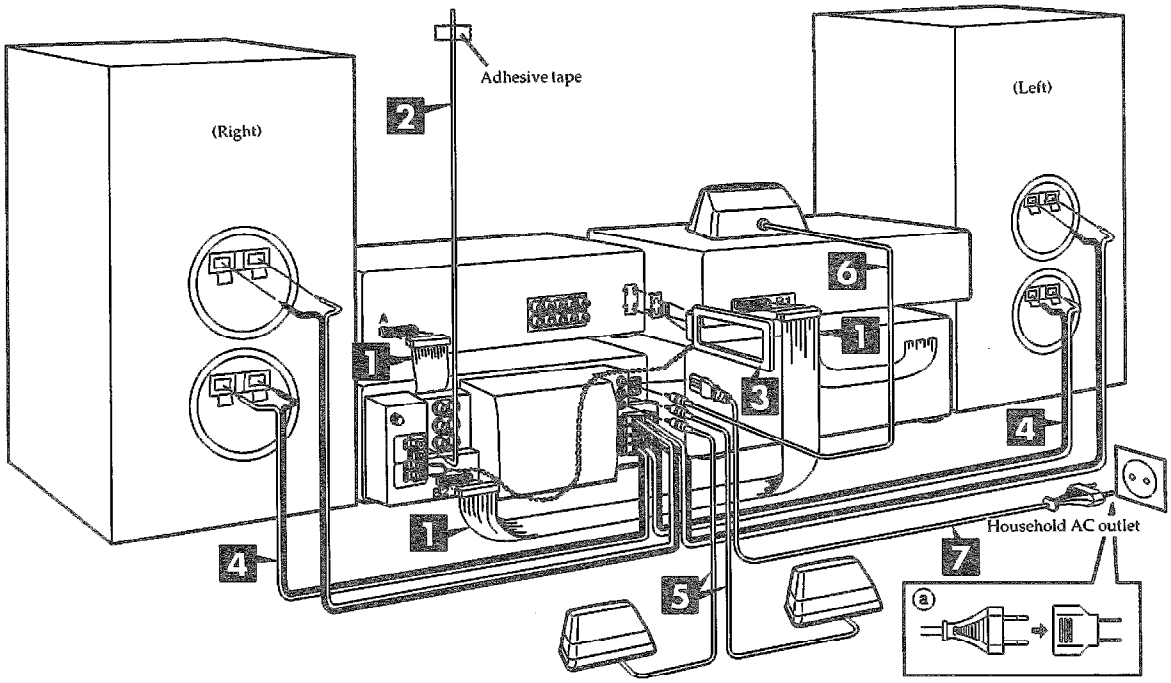


Note
Never use speakers other than those supplied. (SB-EH600) For instance, if you connect speakers with an impedance of 6Ω each and plug them into the LOW and HIGH terminals, you will only have a combined impedance of 3Ω

Connections

Connect the AC mains lead after you have connected all other cables.

To prepare the AM loop antenna wire, FM indoor antenna and speaker cords, twist the vinyl cover tip and pull off.



1

To connect cables

Connector

White line

To unplug cables

Hold the connector from both ends and pull it out.

3

1

2

4

Tuner/amplifier side

Gray (+)

Blue (−)

Black (−)

Red (+)

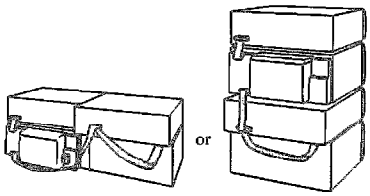
Speaker side

Black or Blue (−)

Red or Gray (+)

1 Connect the flat cables.

1. Connect the shorter flat cable from the tuner/amplifier to terminal A on the sound processor.
2. Connect the longer flat cable from the cassette deck to terminals B1 and B2.



Note

Do not try connecting or disconnecting the flat cables while the power is switched to ON.

After connection:

Keep cables as flat against the back of the unit as possible.

2 Connect the FM indoor antenna.

Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note

When you cannot get good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

3 Connect the AM loop antenna.

1. Attach the antenna holder to the rear panel of the sound processor.
   Then clamp the antenna into the antenna holder.
2. Connect the antenna terminal to the rear panel of the tuner/amplifier.

Note

To minimize noise pickup, bundle the loop antenna cord using tape or the like to keep the flat cables away from the AM loop antenna cord.

4 Connect the right (R) and left (L) front speaker cables.

Connect each end of the speaker cables to the terminal lever of the same color.

Notes

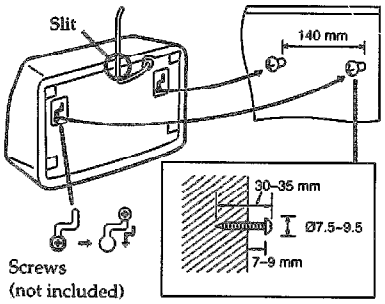
- To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.
- Be sure to connect only positive (red or gray) wires to positive (+) terminals and negative (black or blue) wires to negative (−) terminals.
- Left and right front speakers are exactly the same.

5 Connect the surround speaker cables.

Check the L (Left) or R (Right) channels indication on the underside of the speakers for correct placement. Place the speakers with the Technics logo facing forward the listening position.

Attaching to wall

- Set speaker onto screws and slide through bracket kink to lock into position.
- The wall or pillar on which the speaker systems are to be attached should be capable of supporting a weight of 5 kilograms.
- Feed wire through slit to fix from center-top of speaker.



6 Connect the center speaker cables.

Note for front/center speakers

These speakers are made so as to be able to be used in close proximity to the TV, but irregular coloring may result due to how the system is placed. If such distortion occurs, turn off the TV for sometime between 15 and 30 minutes. The demagnetizing function of the TV will eliminate the distortion. If the irregular coloring is still visible, then move the speaker further away from the TV.

Please note that if there is a magnetic object near the TV, irregular coloring may result due to the interaction between the TV and the speakers.

7 Connect the AC mains lead.

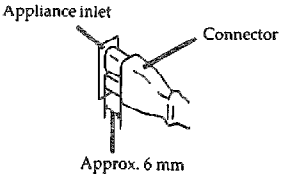
- **Before making connections:**
  Make sure the voltage selector is set to the correct position.

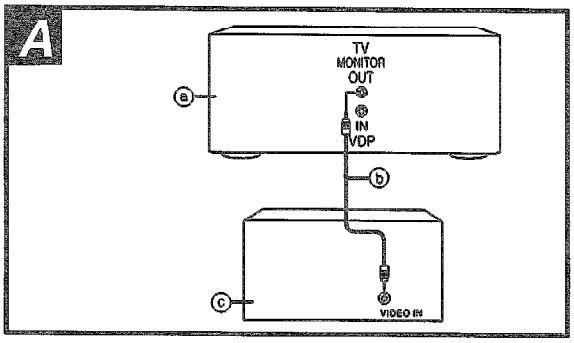
ⓐ If the power plug will not fit your socket, use the power plug adapter (included).

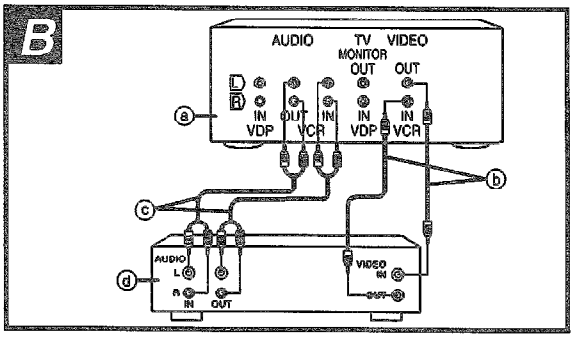
Insertion of Connector

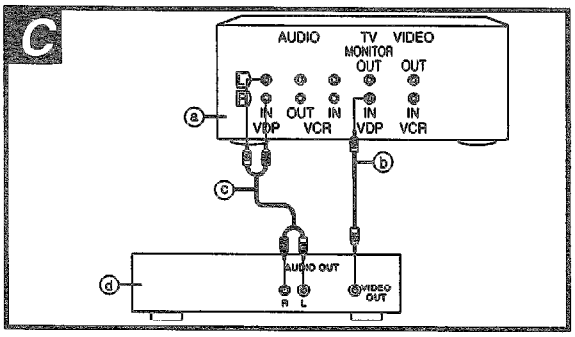
Even when the connector is completely inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the illustration.

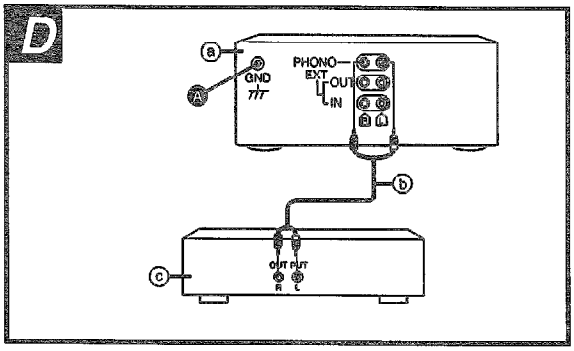
However there is no problem using the unit.

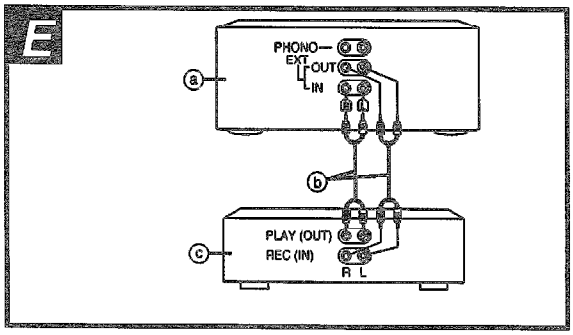












External unit connections

- Make sure that the power supply for all components has been turned off before making any connections.
- For details, refer to the operating instructions of the unit which is to be connected.
- All peripheral components and cables sold separately.

Stereo connection cable (not included)

White (L) (L)
Red (R) (R)

A Television set
- ⓐ Sound processor
- ⓑ Video connection cable
- ⓒ Television set

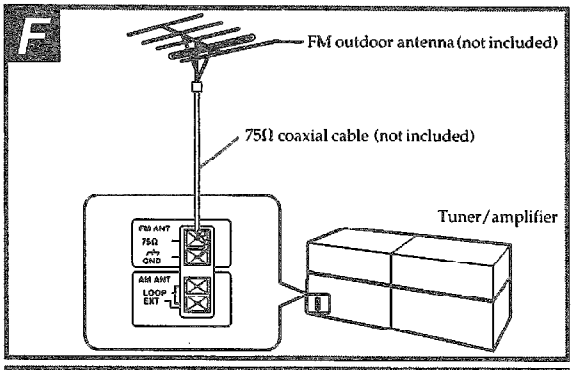
B Video Cassette recorder
- ⓐ Sound processor
- ⓑ Video connection cable
- ⓒ Stereo connection cable
- ⓓ Video cassette recorder

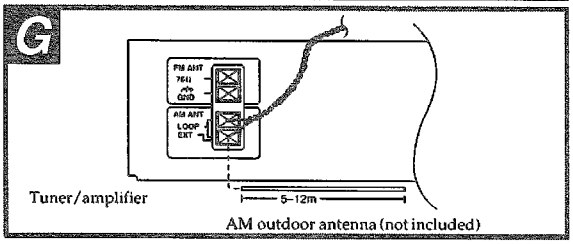
C Laser disc player
- ⓐ Sound processor
- ⓑ Video connection cable
- ⓒ Stereo connection cable
- ⓓ Laser disc player

D Turntable
- ⓐ Tuner/amplifier
- ⓑ Stereo connection cable
- ⓒ Turntable

"GND" terminal (Ⓐ):
This terminal is for a ground wire use.

E Cassette deck
- ⓐ Tuner/amplifier
- ⓑ Stereo connection cable
- ⓒ Cassette deck





Optional antenna connections

You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc.

FM outdoor antenna (not included) F

Note

An outdoor antenna should be installed by a qualified technician only.

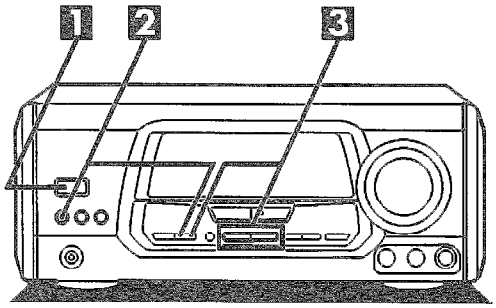
AM outdoor antenna (not included) G

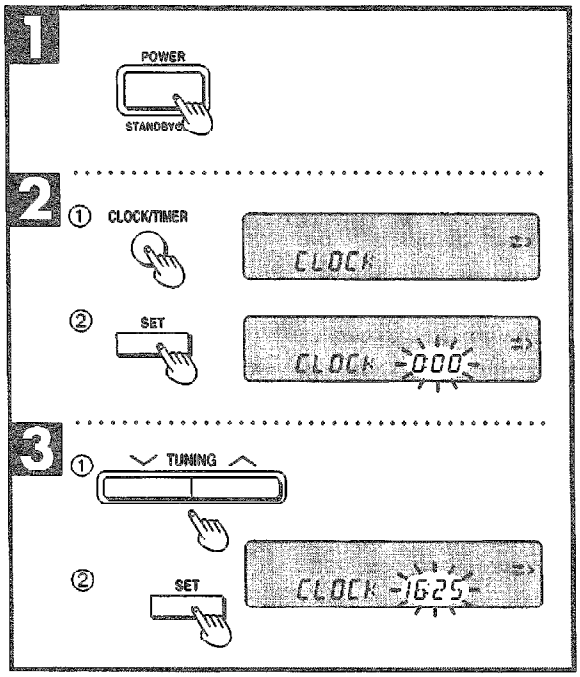
Connect the outdoor antenna without removing the AM loop antenna. Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.

Note

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

■Setting the Time





The tuner/amplifier displays the time, frequency and other information on CDs and tapes.

This is a 24-hour display clock.

These instructions explain how to set the timer for 16:25.

1 Switch on the power.

2 ① Press CLOCK/TIMER to show "CLOCK".

Every time you press the button, the indication changes in the order of CLOCK→◴ PLAY→◴ REC→Original display.

Within 5 seconds:

② Press SET.

3 ① Press TUNING (∨ or ∧) to set the present time on the display.

The time display can be changed in one minute units by tapping the buttons, and quickly by holding down the buttons.

② Press SET.

The display will return to the previous display after about 3 seconds.

When "–:–" appears:

It appears when you connect the AC power supply cord for the first time or if there has been a power failure.
Reset the time as explained above.

If the minutes setting is off:

1. Press CLOCK/TIMER.
2. Press SET.
3. Press TUNING (∨ or ∧) to set the minutes, and then press SET.

To display the clock again:

Press CLOCK/TIMER.
The clock display will appear for about 5 seconds.

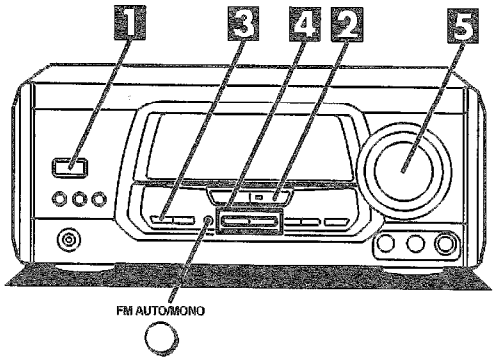
For your reference:

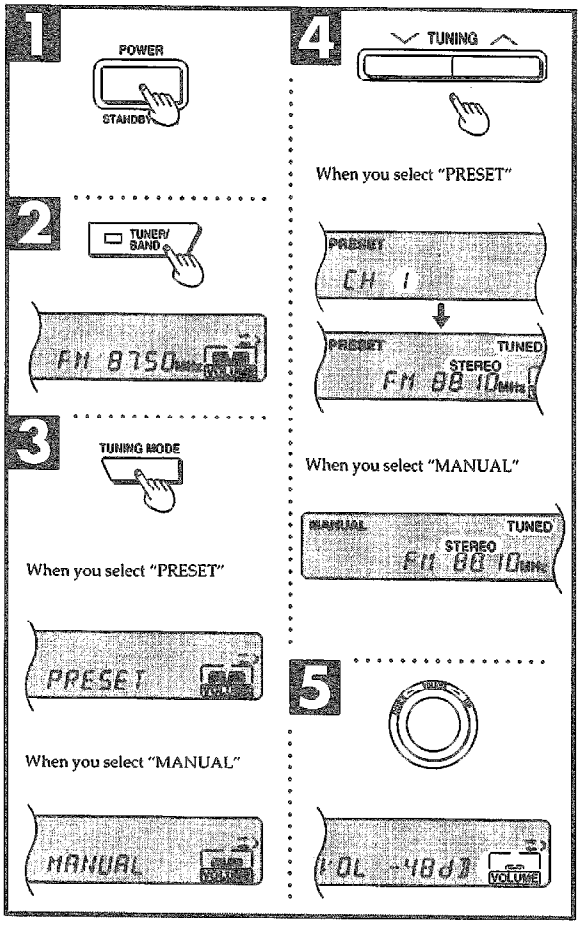
When you turn OFF the system from the POWER button, the system goes on standby.

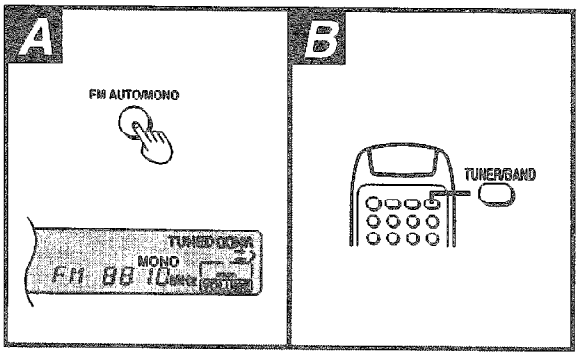
Demo function while the power is on:

When the input source is set to "CD" or "TAPE", the demo function will run automatically after about 2 minutes or more in the stop mode.
You can cancel the demo function by pressing and holding DISP MODE/–DEMO for about 2 seconds or more while the automatic demo function is activated.

Listening to Radio Broadcasts







This example in the figure shows how to tune in FM stations.

1 Switch on the power.

2 Press TUNER/BAND to select the desired band.
Each time you press this button, "FM" and "AM" will appear alternately.

3 Press TUNING MODE to select "PRESET" or "MANUAL".
Each time you press this button, "MANUAL" and "PRESET" will appear alternately.
- Select "PRESET" when stations are preset.
  (Refer to "Memory presetting" on pages 26 or 28 to preset stations.)
- Select "MANUAL" when stations are not preset.

4 Press TUNING (∨ or ∧) to tune in the desired broadcast.
"STEREO" lights when an FM stereo broadcast is being received.
"TUNED" lights when you precisely tune in a broadcast station.

Automatic scanning (when you select "MANUAL" in step 3):
Press and hold TUNING (∨ or ∧) until the displayed frequency starts to scroll.
- The scrolling of the displayed frequency will automatically stop if a broadcast station frequency is located during the tuning process.
- When there is excessive interference, the automatic scanning may not function.

To cancel the automatic scanning, press TUNING (∨ or ∧) once again.

5 Adjust the volume level as you like.

For tuning by remote control (when you select "PRESET" in step 3 above):
Specify the channel you want with the numeric buttons.

To select a two-digit channel:
Press ≥10 and then the two numbers you want within 10 seconds or so.

Note
When the FM station is preset to "MONO", the "STEREO" indicator will not light up even if a stereo broadcast is being received.

If noise is excessive in the FM stereo mode A

Press FM AUTO/MONO.
The sound reception mode switches to "MONO" (monaural) and "MONO" lights.

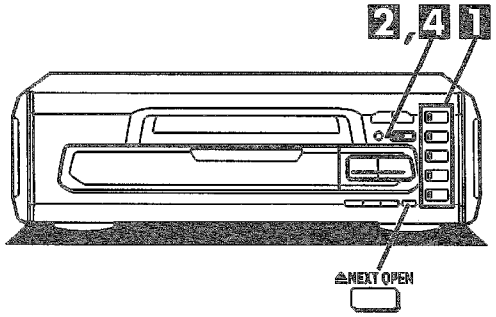
The sound will then be heard in monaural. If the broadcast signal is weak, or if there is a large amount of interference, you will get a clearer sound using MONO function.
To cancel the "MONO" mode, press the button again.

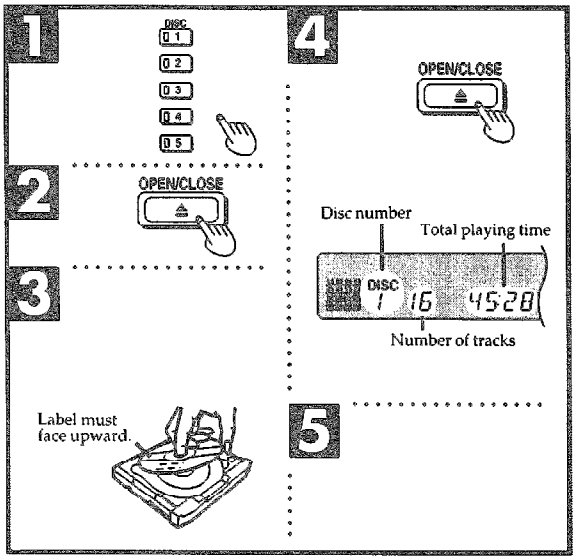
When "MONO" indicator goes off:
Use this setting for normal listening. Both stereo and monaural sounds can be heard as they are.

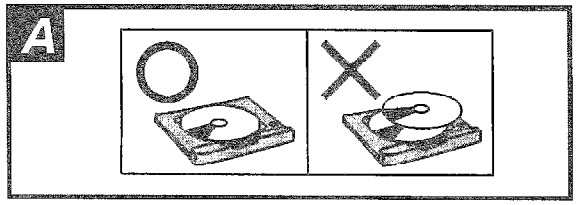
Note
If you change frequencies in the "MONO" mode, the "MONO" mode will be cancelled.

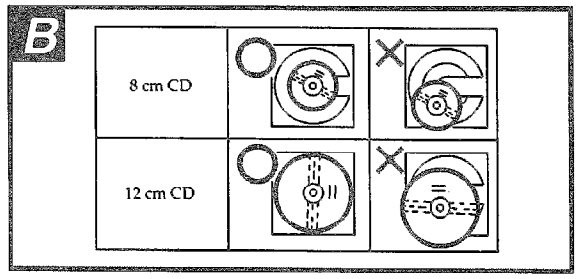
One-touch play B
When the system is OFF, you can receive the station last tuned in when you press TUNER/BAND on the remote control. Play will start with volume increasing gradually.

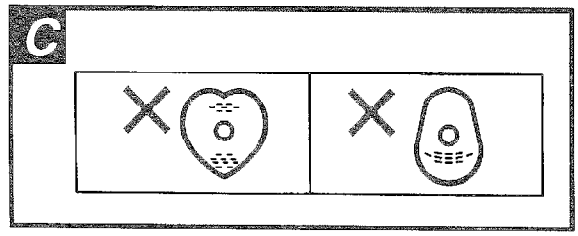
■ Listening to Compact Discs











Always stop the changer before loading or changing CDs. You cannot change CDs while a disc is playing.

How to load CDs

1 Press DISC 1–5, whichever you want to open.

2 Press ▲ OPEN/CLOSE.

3 Set the CD in the tray.

4 Press ▲ OPEN/CLOSE.
The tray will close.

5 To load other CDs, repeat steps 1 through 4.

About disc indicators:
Green: Indicates that the tray is ready to play its CD or to be opened.

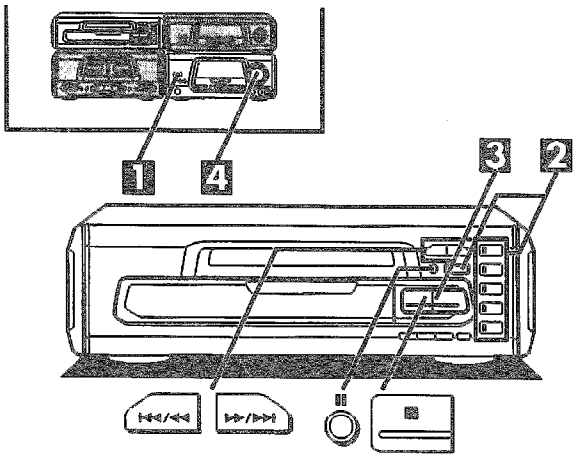
How to check which trays have discs

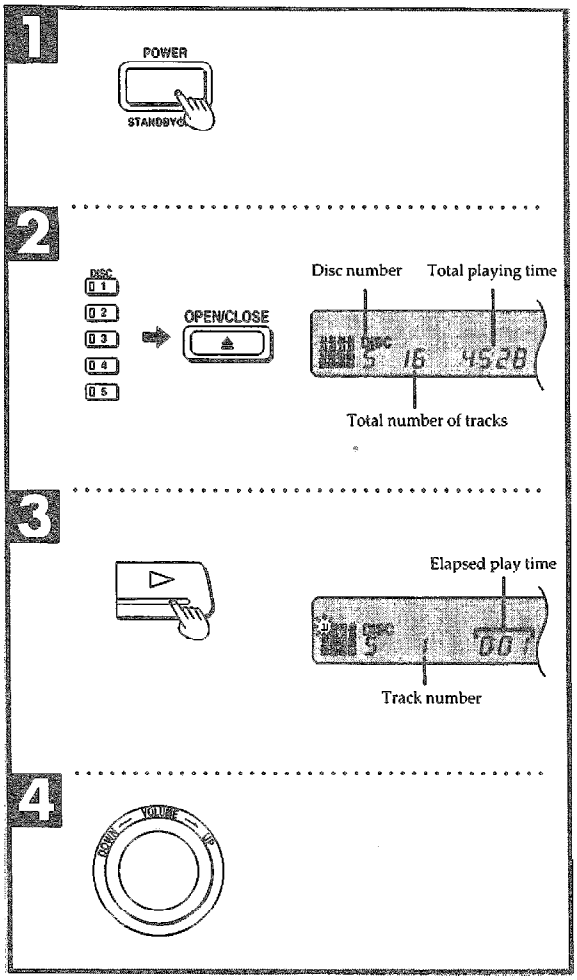
▲ NEXT OPEN is a convenient button to use for this function.

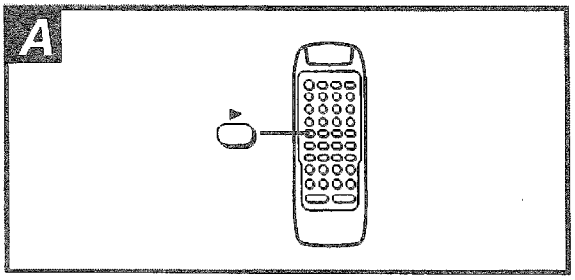
Press ▲ NEXT OPEN.
The first tray to open will be the next one after the disc number shown on the display. For example, when disc 4 is displayed, tray 5 will open.
- Every time you press the button, the next tray opens.
- You can change the CD while the tray is open.
- To close the tray, press ▲ OPEN/CLOSE.

To prevent damage

Always observe the following points.
- Load only 1 CD per tray. A
- Load CDs as shown in figure B.
  An adapter is not needed with 8 cm CDs (singles).
- Set the system on a flat, level surface.
  Do not set it on top of magazines, inclined surfaces, etc.
- Do not move the system while trays are opening/closing, or when loaded.
  Always unload all trays before moving the system.
- Do not put anything except CDs in trays.
- Do not use cleaning CDs or CDs which are badly warped or cracked.
- Do not use CDs with poorly attached labels or stickers. Adhesive protruding from underneath stickers or left over from peeled off stickers can cause the system to malfunction.
- Do not use irregular shape CDs. C







Sequential play

1 Switch on the power.

2 Insert CDs in the trays.

When the "CD" input source is selected, disc number, total number of tracks, and total playing time will appear on the display.
When there are 16 or more tracks on the CD, " ⩥ " will appear.

Note
The total playing time displayed when a disc is loaded includes intervals between tracks. This is why sometimes the displayed time is longer than that listed on the CD.

3 Press ▷.

The changer will automatically play all tracks on all discs. It will start from the first track on the disc shown on the display, and will continue until playing the last track of the final disc (see below).

4 Adjust the volume level as you like.

To stop the disc play:
Press ■.

To temporarily stop the disc play:
Press ❚❚. The play indicator flashes green.
To play again, press ▷.

What is meant by "final disc"?:
For example, if play starts from disc 4, disc 3 will be the "final disc".
Order of progression:
Disc 4→5→1→2→3

When "NO DISC" display appears:
It indicates that a CD has not been installed in the disc tray shown on the display.

About play indicator:
While halted: Lights up orange.
While playing: Lights up green.

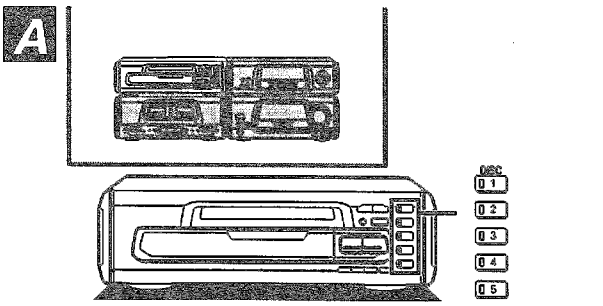
For your reference:
If you press ▷ instead of ⏏ OPEN/CLOSE after inserting a CD, the tray will close and play will start directly from the track 1.

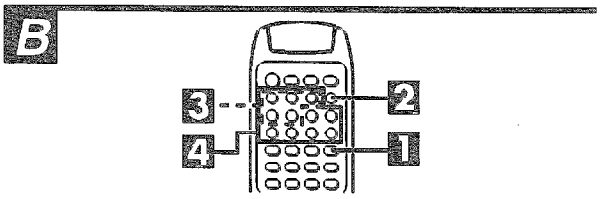
To search forward/ backward	Hold down during playback. ⌈⏮/◀◀⌋⌈▶▶/⏭⌋ (Backward) (Forward)
To skip forward/ backward	Press. ⌈⏮/◀◀⌋⌈▶▶/⏭⌋ (Backward) (Forward)

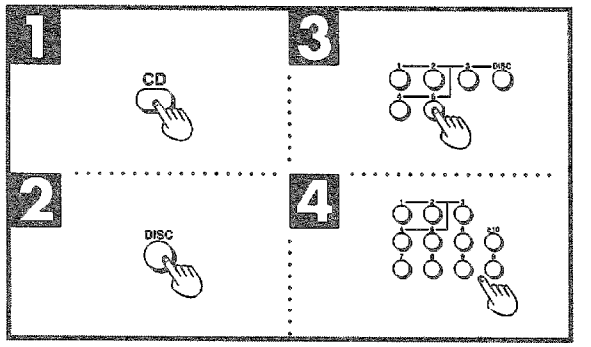
Note
During random play, you cannot skip to tracks which have already been played.

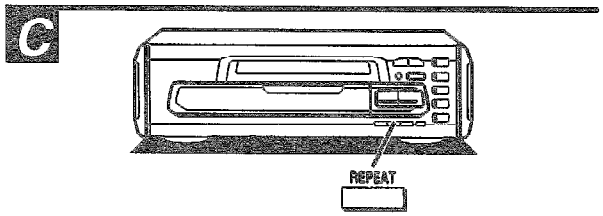
For your reference:
- During program play or random play, you cannot search-forward/ backward over tracks.
- During program play, skipping is in always in the programmed order, whether forward or backward.

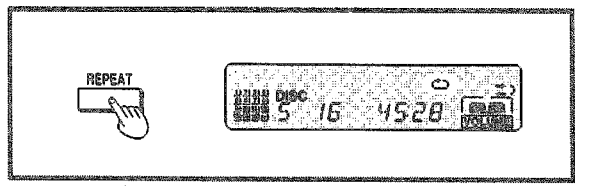
One-touch play A
When the system is OFF, playing starts automatically when you press ⩥ on the remote control.
The play will start with volume increasing gradually.

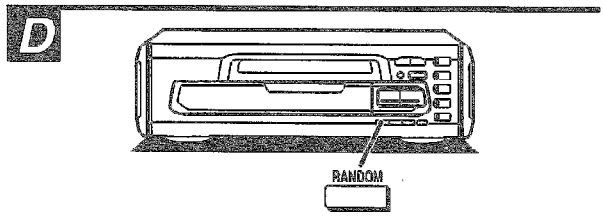


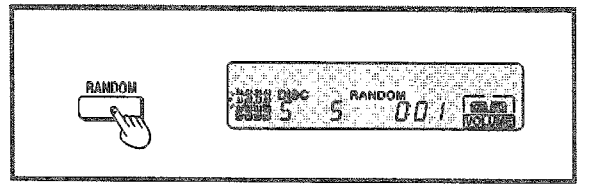












Direct access play

To listen to a favorite CD A

Press DISC 1–5, whichever disc you want.
The selected CD will be played from the first track to the last track of the final disc.
Playback will stop automatically when the last track of the final disc is finished.

To listen to a favorite track B

by remote control only

1 Press CD.

2 Press DISC.

3 (within 10 seconds or so)
Press DISC 1–5, whichever disc you want.

4 Press the numeric button(s) to select the desired track number.
The CD will be played from the selected track to the last track of the final disc.
Playback will stop automatically when the last track is finished.

To select a two-digit track:
Press ≥10 and then the two numbers you want within 10 seconds or so.

Repeat play C

This function repeats the play of all tracks.

Press REPEAT before or during play.
"↻" will light.

To cancel repeat play:
Press REPEAT once again.
"↻" will go out.

For your reference:
In program play mode, the CD changer will repeat only the programmed tracks. You can enjoy the same track over and over by programming only one track.

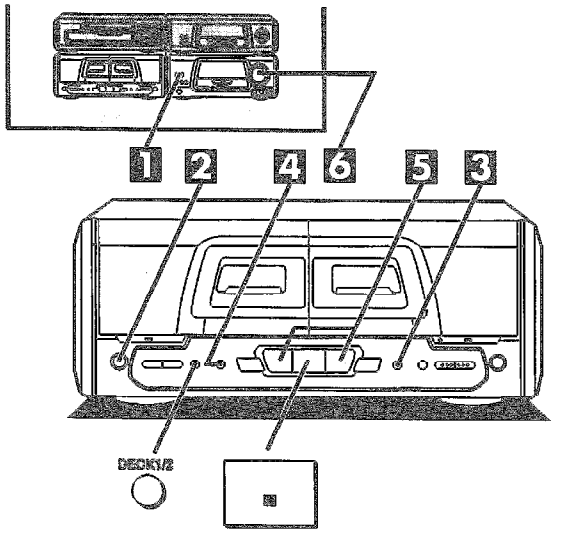
Random play D

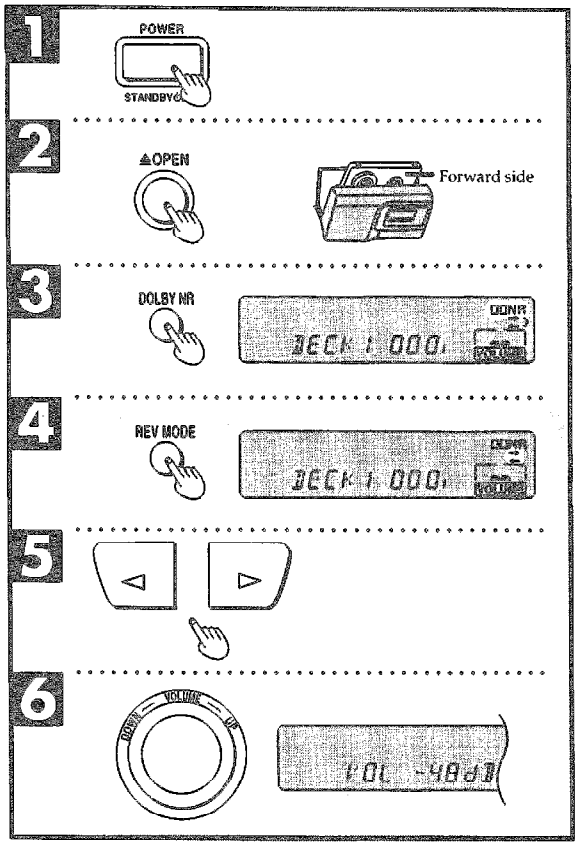
Press RANDOM.
"RANDOM" will light, and then random play will start.
Play will stop automatically when all tracks on all of the discs finish playing randomly.

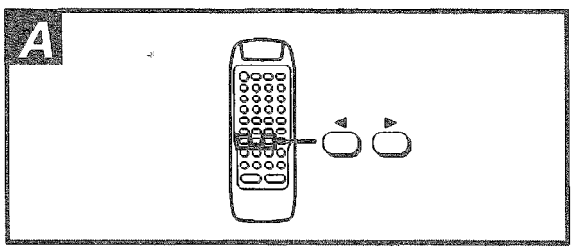
To cancel random play:
Press RANDOM once again.
"RANDOM" will go out. The CD changer resumes the sequential play mode.

For your reference:
In the program play mode, the programmed tracks will be played randomly.

■ Listening to Tapes







Playback

Type of tapes which can be played correctly:
The unit automatically identifies the type of tape.

Normal position/TYPE I	○
High position/TYPE II	○
Metal position/TYPE IV	○

- Both deck 1 and 2 can be used to playback tapes.
- This page shows an example using deck 1.

1 Switch on the power.

2 Press ≜ OPEN on deck 1, and then insert the tape.
Load a tape with the exposed side facing downward.
Close the cassette holder.

3 To listen to a tape recorded in Dolby B NR:
Press DOLBY NR and check "□□ NR" is displayed.
When playing back a tape which was not recorded in Dolby NR, press DOLBY NR so that the indicator goes off.

4 Press REV MODE to select the reverse mode.
Each time you press REV MODE, one of the indicators will appear.
- ⇄: The deck plays one side only, and then stops automatically.
- ⇄: The deck plays both sides, and then stops automatically.
- ⇄: The deck plays both sides 8 times, and then stops automatically.
  When you load tapes into both decks, sequential playback will repeat 8 times.

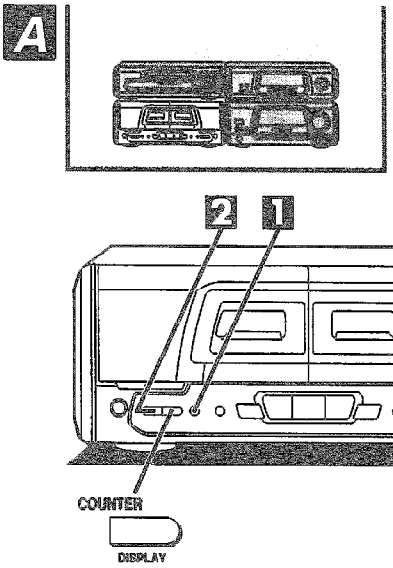
5 Press ◁ or ▷.
▷: The forward side will play.
◁: The reverse side will play.

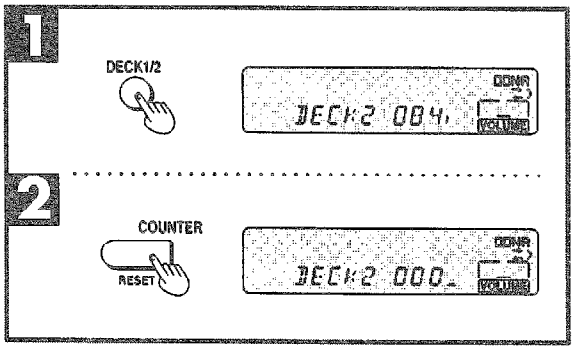
6 Adjust the volume level as you like.

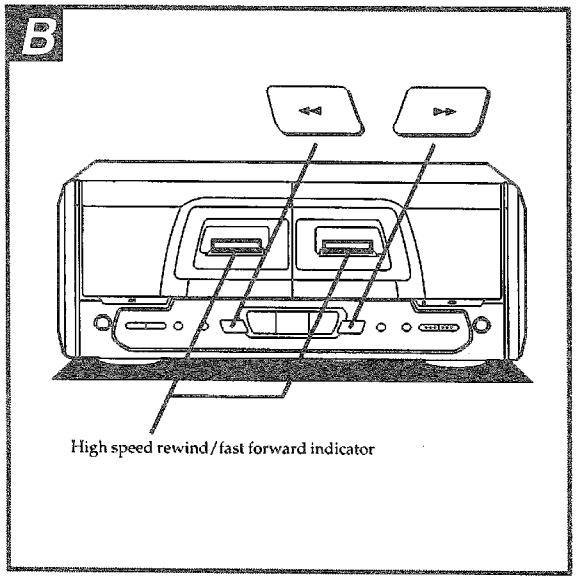
To stop tape playback:
Press ■.

To change the deck to be used:
Press DECK 1/2 to select the deck you want to play.
Deck 1 or deck 2 indicator lights up.

One-touch play
When the system is OFF, playing starts automatically when you press ◀◀ or ▶▶ on the remote control.
The play will start with volume increasing gradually.







To reset the tape counter

A

1 Press DECK 1/2 to select the deck to be used.

2 Press COUNTER RESET.
When the tuner or CD mode display shows, the tape counter display will appear for about 1 second.

To reset the tape counter while listening to or recording from CDs or the radio

① Press COUNTER DISPLAY.
② Press COUNTER RESET while the tape counter is being displayed (displayed for approximately 5 seconds).

For your reference:
- When the tape is travelling in the reverse direction, the value displayed on the tape counter will count down.
  After "000_" is reached, the display will switch to "999_" and then continue counting down.
- It is useful—for example—to reset the counter when recording from the middle of tapes. The number lets you know roughly where you started from.

About the playback indicators:
While halted, fast forwarding, or rewinding:
Lights up orange.
While playing or recording:
Lights up green.
While finding the beginning of a program or recording is on standby:
Flashes green.

To fast forward or rewind the tape

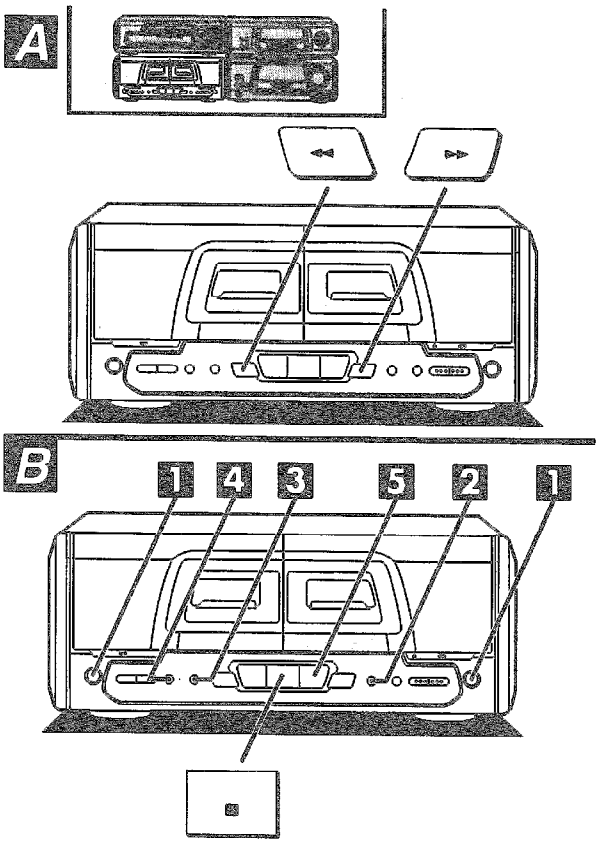
B

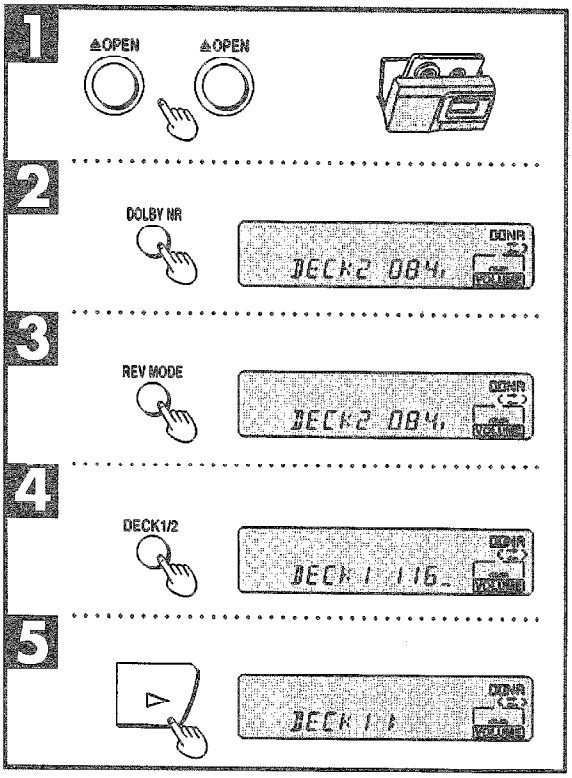
Press ◀◀ or ▶▶ while the tape is in the stop mode.

Tape direction	To rewind	To fast-forward
▷	◀◀	▶▶
◁	▶▶	◀◀

Hi-speed fast-forward/rewind
This cassette deck is designed to roughly double fast-forward/rewind speed automatically.
When you fast-forward from the beginning of the tape or rewind from the end of it, the tape runs at high speed and the high speed rewind/fast forward indicator flashes.
When reaching the end of the tape, the deck automatically drops to normal speed.

For your reference:
- Each deck's play direction is stored in the system's memory.
- The deck may not sometimes make the high-speed rewind/fast-forward from midway through the tape.
- You can fast forward or rewind the tape while you are playing or recording a tape in another deck. Press DECK 1/2 to switch to the non playing deck, and then press ◀◀ or ▶▶. After the above operation, be sure to press DECK 1/2 to select the deck in which you are playing a tape.





To find the beginning of a program (TPS: tape program sensor)

A

Press ◀◀ or ▶▶ while the tape is playing.

If the forward side (▷) is playing:
▶▶: The tape will play from the beginning of the next tune.
◀◀: The tape will rewind to the beginning of the present tune. Then the tune will play again.
If the reverse side (◁) of the tape is playing:
The reverse operation will take place.

Notes

TPS is the function that searches for the silent passage in a tape program. So, it may sometimes fail to operate correctly in the following situations:

- When the interval between programs is less than 4 seconds
- When there is a particular low-level passage in a program (for example, classical music)
- When the program is less than 10 seconds, or when it is less than 10 seconds from the listening point to the beginning of the next tune
- When the tape is recorded with fade-ins or fade-outs

Sequential playback among 2 tapes

B

1 Press ≜ OPEN on decks 1 and 2, and then insert the tapes.

Load with the side that you wish to listen to first facing you in deck 1.
Close each deck's cassette holder.

2 Press DOLBY NR to select ON or OFF.

"DD NR" appears when the Dolby NR system is on.

3 Press REV MODE to select "⊂⇄⊃" mode.

4 Press DECK 1/2 to select deck 1.

The deck 1 indicator will light up.

5 Press ▷.

① Forward side of tape in deck 1
↓
② Reverse side of tape in deck 1
↓
③ Forward side of tape in deck 2
↓
④ Reverse side of tape in deck 2

- After repeating above operation 8 times, the tape will automatically stop.
- You can also start playback from a position other than the forward side in deck 1 (①). In this case, too, the deck still counts 1 sequential rotation after finishing playback of the reverse side of tape in deck 2 (④).

To stop tape playback:

Press ■.

For your reference:

You cannot select Dolby NR for deck 1 and 2 independently. We recommend you use tapes of the same type (Dolby noise reduction).

About priority of the deck:

When you load tapes in both decks, the deck 1 or 2 indicator will light to show which deck you loaded last.
If tapes are loaded in both decks when you switch on the power, the deck 1 indicator will light.

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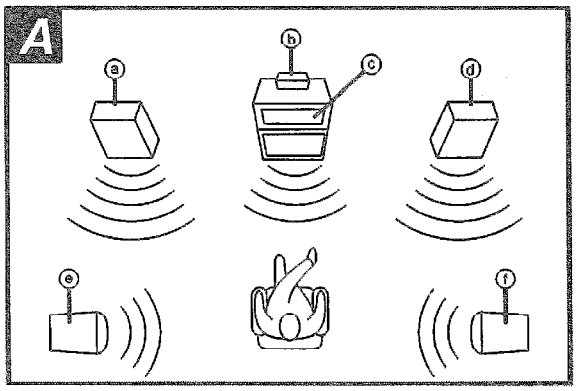

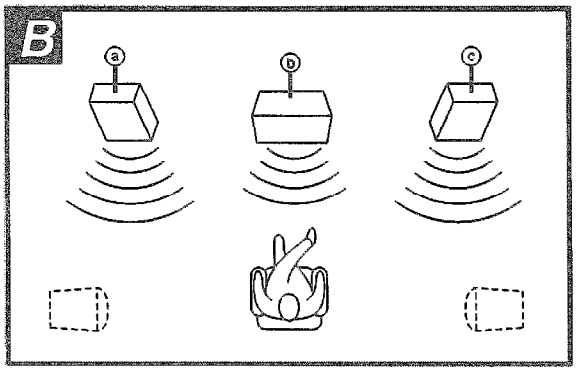

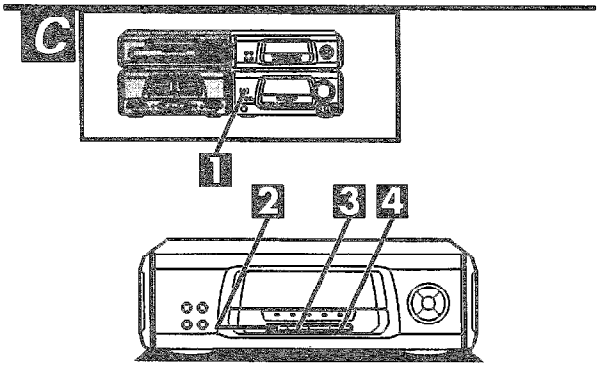

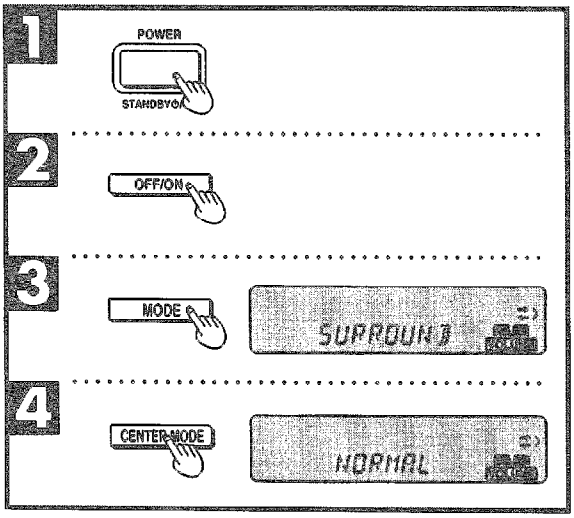

By combining front, center and surround speakers, you can enjoy the SURROUND mode which conveys a feeling of presence or the 3 STEREO mode which conveys a feeling of orientation.

SURROUND A

By reproducing the feeling of depth and movement of sound, video software or compact discs recorded with Dolby Surround provide the listener with the sensations of a movie theater.

ⓐ Front speaker (L)
ⓑ Center speaker
ⓒ Television (not included)
ⓓ Front speaker (R)
ⓔ Surround speaker (L)
ⓕ Surround speaker (R)

To enjoy SURROUND, be sure to connect the surround speakers.

3 STEREO B

You can enjoy audio/video sources with clear sound, more presence and enhanced orientation. 3 STEREO can be used with sources not recorded in DOLBY SURROUND.

ⓐ Front speaker (L)
ⓑ Center speaker
ⓒ Front speaker (R)

To enjoy 3 STEREO, be sure to connect the center speaker.

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Setting the center mode C

For Dolby Pro Logic systems, center mode setting is necessary to play back bass sounds effectively. Set the center mode in accordance with the size of your center speaker.

1 Switch on the power.

2 Press DOLBY PRO LOGIC OFF/ON to select ON.

3 Press MODE to select "SURROUND" or "3 STEREO".

Each time you press the button, the display will change as follows:
SURROUND→3 STEREO
↑_____↓
The selected mode's indicator lights.

4 Press CENTER MODE to select "NORMAL" mode.

Each time you press the button, the display will change as follows:
NORMAL→WIDE→PHANTOM
↑_____↓
The selected mode's indicator lights.

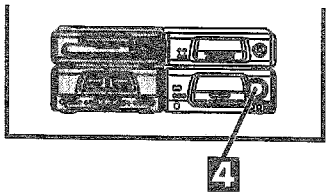
Note

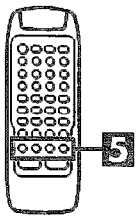
"PHANTOM" will not be displayed when you select "3 STEREO" in step 3.

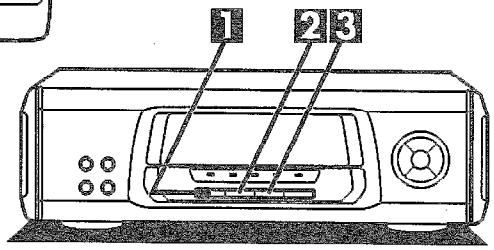
NORMAL:
When the center speaker is smaller than the front speakers
WIDE:
When the center speaker is the same size or larger than the front speakers
PHANTOM: SURROUND only
When no center speaker is connected

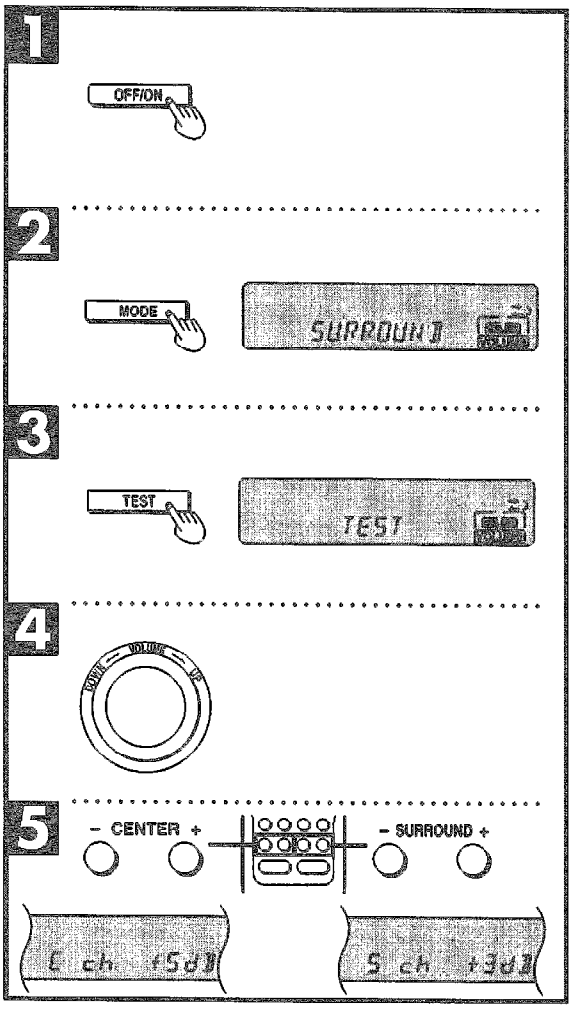
Note

In the PHANTOM mode, the sound which would have been sent to the center speaker will be divided equally between both the left and right front speakers.









Adjusting speaker output level

In order to reproduce the movement of the sound and its clear orientation, it is important to adjust the output level of each speaker. Adjust output to the correct levels while listening to the test signal.

1 Press DOLBY PRO LOGIC OFF/ON to select ON.

2 Press MODE to select "SURROUND" or "3 STEREO".

Each time you press the button, the display will change as follows:

SURROUND→3 STEREO

3 Press TEST to output a test signal.

The test signal is emitted in the following order:

For SURROUND mode

Front speaker (left)→Center speaker→Front speaker (right)→Surround speakers (left, right)→Front speaker (left)

Note

The test signal is not emitted from the center speaker when the center mode is on PHANTOM.

For 3 STEREO mode

Front speaker (left)→Center speaker→Front speaker (right)

4 Turn VOLUME to set the volume level normally used for enjoying the source.

5 Press CENTER (–) or (+) or SURROUND (–) or (+) on the remote control to adjust the output level balance.

Adjust the output level of each speaker from the listening position until they are all identical.

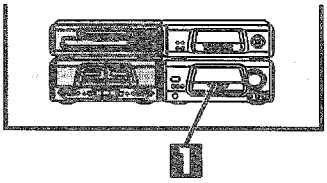
Output levels can be varied within a range of ±12 dB with front speaker output level serving as the zero point.

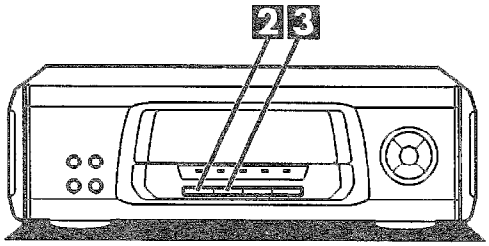
Notes

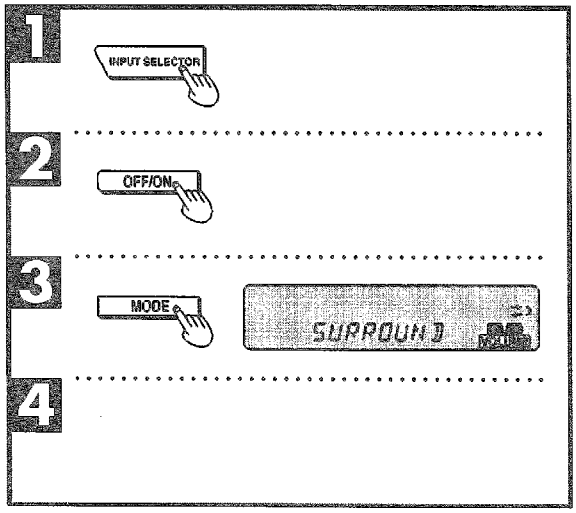
- The test signal is output only by the speaker you are now adjusting and does not repeat the sequence until adjustments are complete.
- Remember you cannot adjust the output level of the surround speakers if you selected the 3 STEREO mode in step 2.

To stop the test signal:

Press TEST.







Enjoying with SURROUND or 3 STEREO

Before trying anything, have you set the center mode and adjusted speaker output level?
When viewing a video, turn on the power supply for the TV and set the TV to video mode.

1 Press INPUT SELECTOR to select the desired external source.

Each time you press this button, sound sources will be switched as follows.

SC-EH600
TUNER → CD → TAPE
↑ ↓
PHONO ← VDP ← VCR ← EXT

SC-EH500
TUNER → CD → TAPE
↑ ↓
VDP (AUX) ← VCR (EXT)

These indications correspond to terminals on the rear panel of the sound processor or tuner/amplifier. Switch the displayed indication to the source you want to use.

2 Press DOLBY PRO LOGIC OFF/ON to select ON.

3 Press MODE to select "SURROUND" or "3 STEREO".

4 Start the desired source.

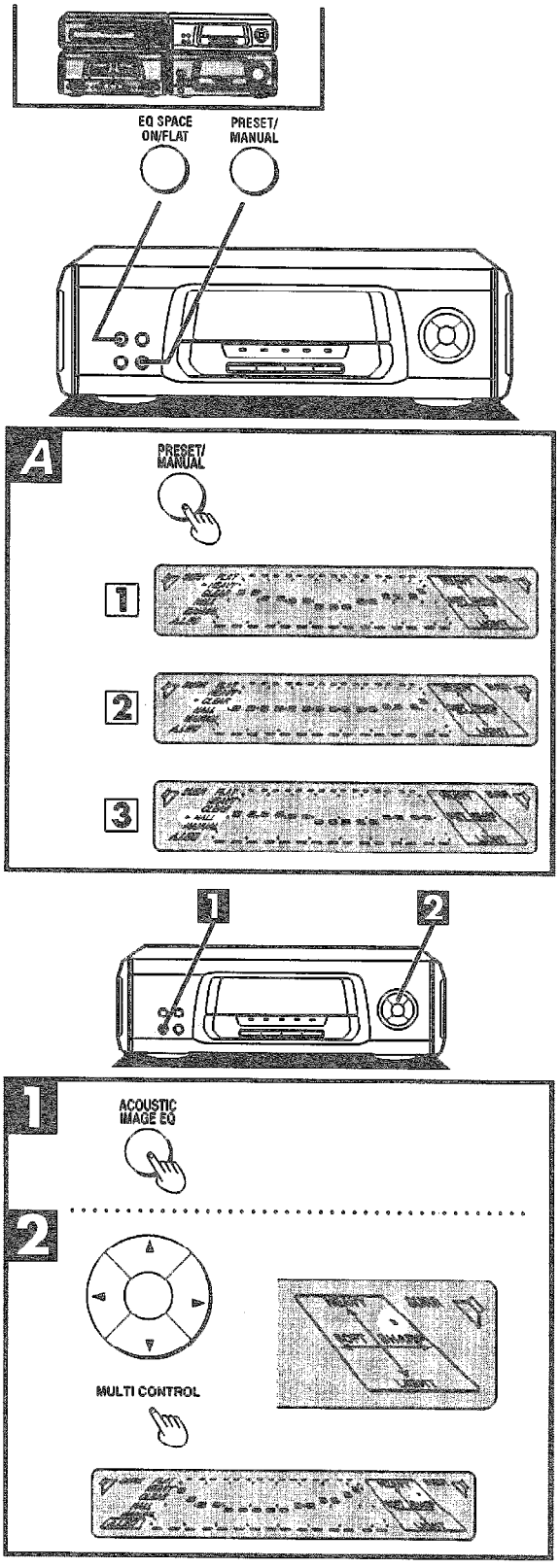
To operate external sources, refer to the operating instructions provided with the specific unit.

Note
When using SURROUND, use software recorded in Dolby Surround.

To turn off the DOLBY PRO LOGIC systems:
Press DOLBY PRO LOGIC OFF/ON to select "OFF".

Note
You cannot record acoustical effects produced in the SURROUND and 3 STEREO modes.

■ Changing the Tone



Using the internal sound quality

4

Press PRESET/MANUAL to select the desired mode.

Each time you press PRESET/MANUAL, EQ and SPACE modes will be switched as follows.

HEAVY→CLEAR→HALL→MANUAL

1 **HEAVY:** Use to add "punch" to rock and other music.
2 **CLEAR:** Use to clarify the treble range of jazz, etc.
3 **HALL:** Use to impart a deep bass and spread which will make you feel as if you were in a large concert hall.
4 **MANUAL:** Refer to the "Finer sound quality changes" section.

To cancel the EQ SPACE effect

Press EQ SPACE ON/FLAT to select "FLAT".

Notes

- Recordings cannot be made in the HALL, CLEAR, HEAVY or MANUAL modes.
- Recording during use of sound quality operation will cause the "HALL", "CLEAR", "HEAVY" and "MANUAL" indicators to disappear and light again when recording is completed.

Using the acoustic image EQ

This function allows easy creation of sounds closer to what you imagine.

The figure shows an example where the sound quality has been adjusted to HEAVY level 2 and SHARP level 3.

1 Press ACOUSTIC IMAGE EQ.

2 Press the ▲ ▼ ◀ ▶ buttons to move the cursor to the desired music image.

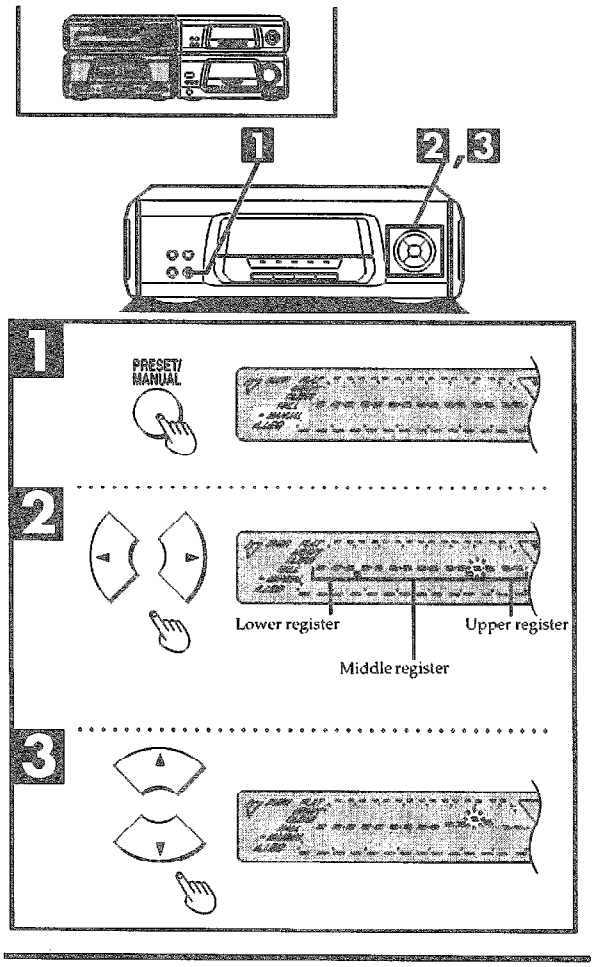
HEAVY (▲): When a heavier sound is desired
LIGHT (▼): When a lighter sound is desired
SOFT (◀): When a softer sound is desired
SHARP (▶): When a sharper sound is desired

To cancel the ACOUSTIC IMAGE EQ effect

Press EQ SPACE ON/FLAT to select "FLAT".

Notes

- Sounds can be made to fit a total of 36 images.
- The resulting adjustment is automatically stored in memory. When the ACOUSTIC IMAGE EQ is pressed again, the image last selected is automatically selected.
- Recording cannot be made in the acoustic image EQ mode.



Finer sound quality changes

Finer sounds can be created by selecting MANUAL.

1 Press PRESET/MANUAL to select MANUAL.

2 Press ◀ ▶ to select the desired register.
▶: Upper register
◀: Lower register

3 Press ▲ ▼ to adjust the register level.
▲: Increasing the register level
▼: Decreasing the register level

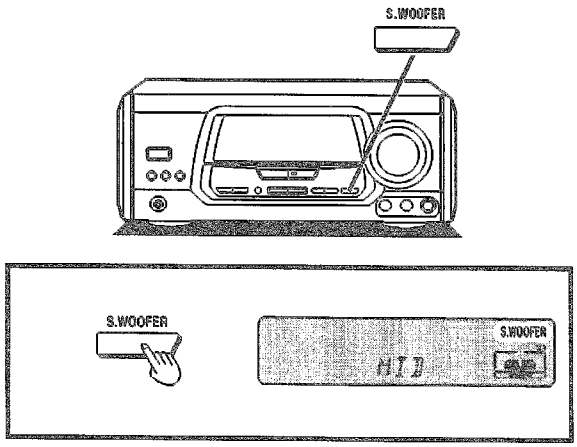
For your reference:

Upper register: includes pipes, strings, cymbals and triangles
- Increasing the upper register: mellows pipes and strings, adds precision and glitter
- Decreasing the upper register: quiets music, rids music of its "stretch"

Middle register: vocals (voice)
- Increasing the middle register: gives strength and punch to music brings voices forward, brightens sound
- Decreasing the middle register: quiets music, pulls voices back, softens intense sounds

Lower register: includes bass and drums
- Increasing the lower register: stabilizes heavy and low sounds, swells low sounds
- Decreasing the lower register: decreases noise in lower sounds, reduces muffled sounds

Note
- The resulting adjustment is automatically stored in memory. When the MANUAL mode is selected again, the sound quality last selected is automatically played back.
- The register can be manually adjusted at 5 individual points along the 100 Hz~10 kHz frequency range.



Boosting the super woofer

Press S.WOOFER.
"S. WOOFER" will light.

•When listening to the sound through the speakers:
Each time you press the button, the level will change as follows.
MID (medium)→ MAX (high)→ Light off (OFF)

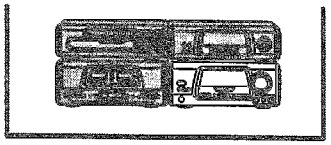
Note
When S. WOOFER is on and either MID or MAX are not displayed then when S. WOOFER is pressed, the current level will be displayed. Pressing the button a second time will change the level.

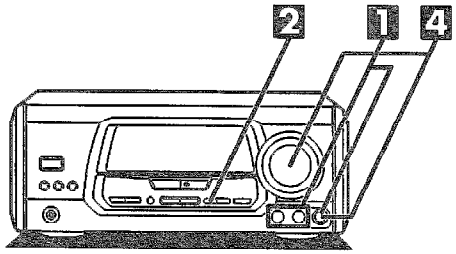
•When listening to the sound through the headphones:
Each time you press the button,
ON ⟷ OFF

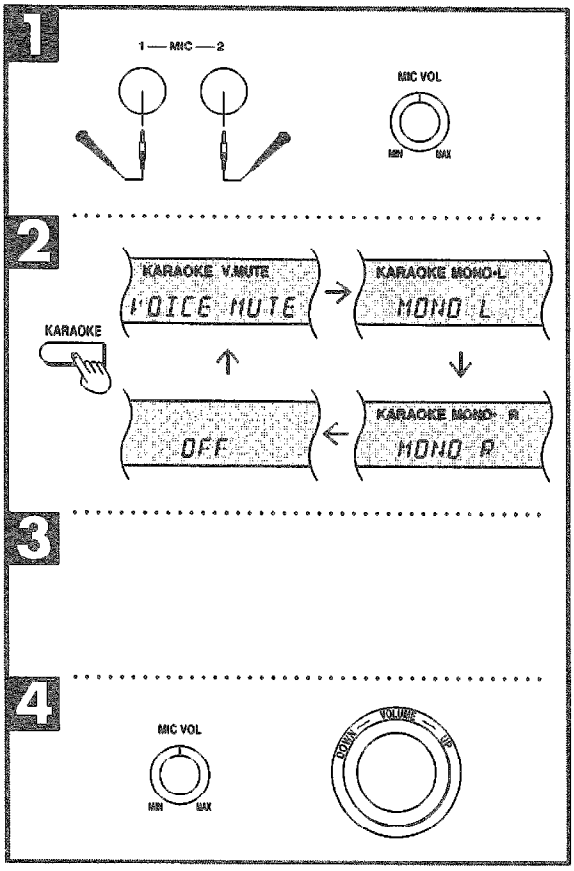
To cancel, press S. WOOFER to select OFF.
("S. WOOFER" will go out.)

Note
You cannot record with S. WOOFER effect.
"S. WOOFER" is only effective on sounds which can be heard through the speakers or headphones.

■ Singing Along with KARAOKE







This unit lets you enjoy KARAOKE fun with audio CDs and audio tapes.

1 First, lower volume with MIC volume control, then, connect the microphone to the MIC jack.
Plug type: 6.3 mm monaural

2 Press KARAOKE to select the voice mode.
Each time the button is pressed, the display will change in the following order:

V•MUTE→MONO L→MONO R
↑——OFF←——————┘

Voice mode selection:
O: Appropriate ●: For practice, etc.

Software / Voice modes	Karaoke		Non-karaoke
	Sound multiplex	Stereo	
OFF	● (Background music+Voice)	O	● (For singing along)
V•MUTE	—	—	O
MONO L	O (Background music)	—	—
MONO R	● (Voice)	—	—

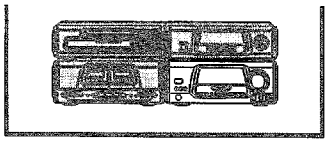
Note
A bar is indicated in the above table when the voice mode is least effective. It is better to avoid using the mode in such cases.

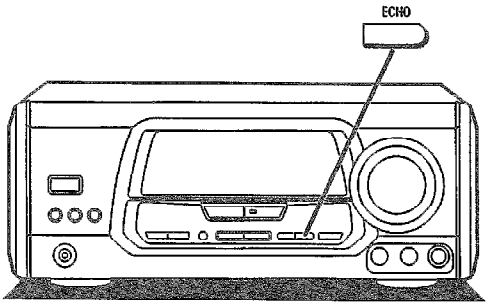
3 Start the source (CD, etc.).

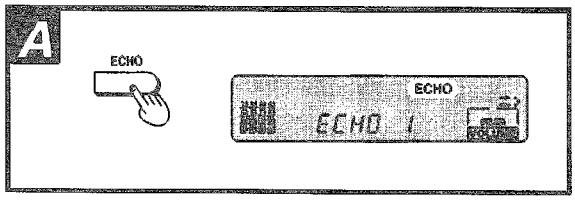
4 Adjust volume with VOLUME and MIC volume control, and sing along.

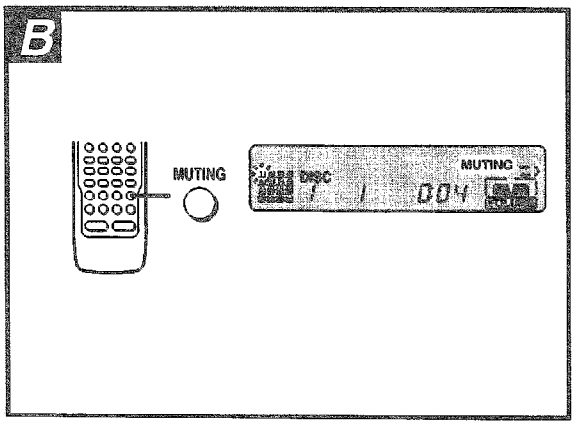
To cancel KARAOKE:
Press KARAOKE to select "OFF" mode.

You cannot use "KARAOKE" function with:
- a tone quality effect (HALL, HEAVY, CLEAR, MANUAL, and ACOUSTIC IMAGE EQ)
- a radio source
- DOLBY PRO LOGIC mode (SURROUND, 3 STEREO)









To record of your "KARAOKE" performance:
Start recording in deck 2, then start "KARAOKE" performance.
To playback the tape recorded in "KARAOKE" mode, press KARAOKE so that the KARAOKE indicator goes out.

You cannot record in "KARAOKE" mode using:
- a tone quality effect (HALL, HEAVY, CLEAR, MANUAL, ACOUSTIC IMAGE EQ and V. BASS or S. WOOFER effect)
- a radio source (including television)
- DOLBY PRO LOGIC mode (SURROUND, 3 STEREO)

When using the V. MUTE (Voice Mute) function
Always use software recorded in stereo. Voice mute may not function sufficiently or noise may interfere when using the following software.
- Monoaural software
- Software with few musical instruments, including classic music and poetry recitations
- Software with duets or strong choruses

To record your voice:
1. Connect the microphone(s) to the MIC jack(s).
2. Press INPUT SELECTOR to select "TAPE".
3. Adjust the microphone volume level.
4. Press ● REC PAUSE to put the cassette deck into the recording standby mode.
5. Press ◁ or ▷ to start recording.
6. Speak into the microphone(s).

Using the Echo Effect A

Press ECHO.
Each time the button is pressed, the effect will change as follows.
ECHO 1→ECHO 2→ECHO 3→ECHO 4
↑————OFF←————┘
Echo levels from ECHO 1 to ECHO 4 can be selected.

To Mute the Volume

This feature is convenient when you have a telephone call, etc.

by remote control only
Press MUTING.
"MUTING" will light.
Sound remains muted when you put the stereo on standby.
To cancel, press MUTING once again. ("MUTING" goes out.)

To cancel from the tuner/amplifier, reduce the volume level to the minimum position (-- dB) and then reset to the desired volume.

Operation Checks and Main Component Replacement Procedures

NOTE

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.

• Contents

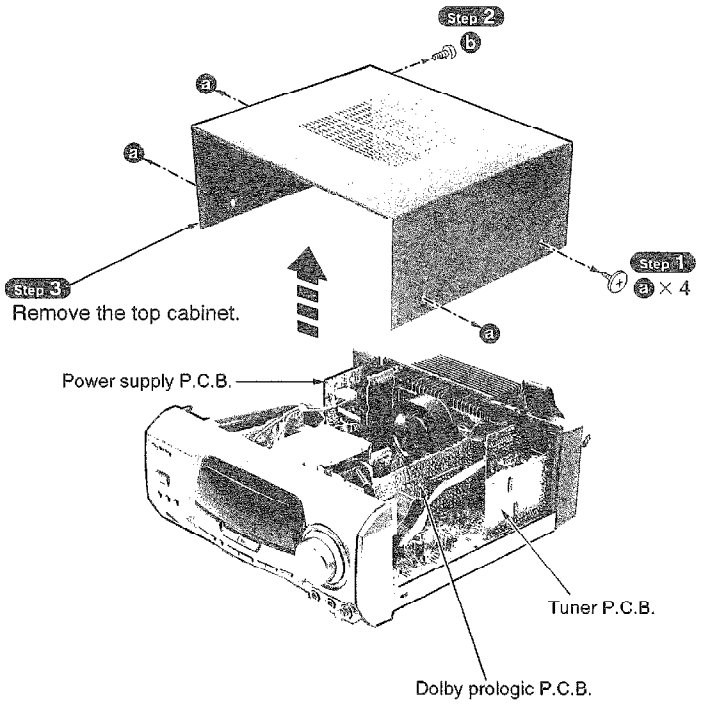
• Checking Procedure for each P.C.B. Page.
1. Checking for the tuner P.C.B., dolby prologic P.C.B. and power supply P.C.B. .... 23.
2. Checking for the operation P.C.B. .... 24.
3. Checking for the main P.C.B. .... 24,25.

• Main Component Replacement Procedures
1. Replacement for the power IC and regulator transistor. .... 26.

Checking Procedure for each P.C.B.

1. Checking for the tuner P.C.B., dolby prologic P.C.B. and power supply P.C.B.

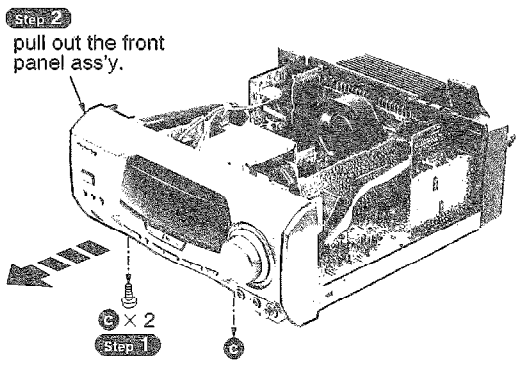
• Check the tuner P.C.B., dolby prologic P.C.B. and power supply P.C.B. as shown below.

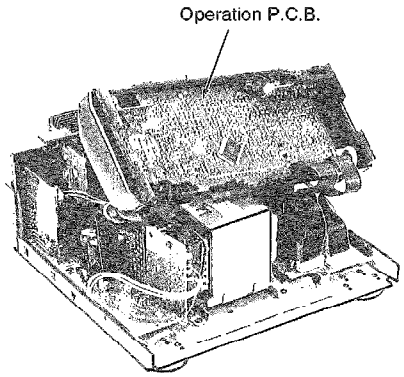


2. Checking for the operation P.C.B.

• Follow the Step 1 ~ Step 3 of the item 1 in checking procedure for each P.C.B. on page 23.

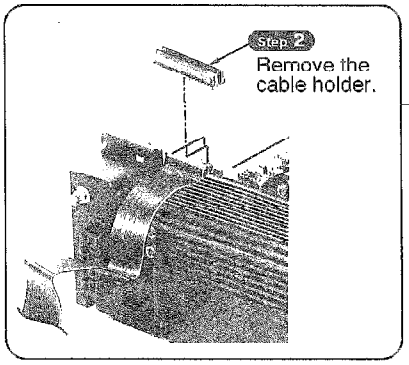
• **Check the operation P.C.B. as shown below.**

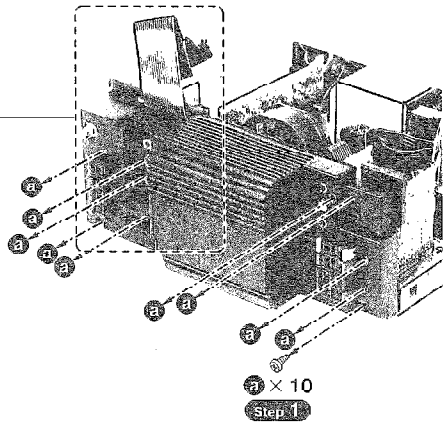


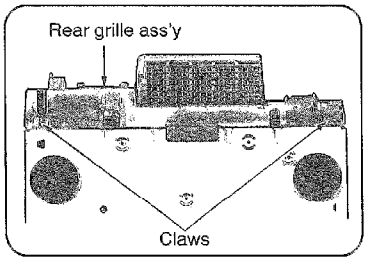


3. Checking for the main P.C.B.

• Follow the Step 1 ~ Step 3 of the item 1 in checking procedure for each P.C.B. on page 23.

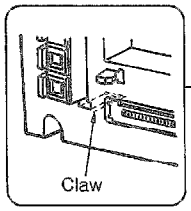


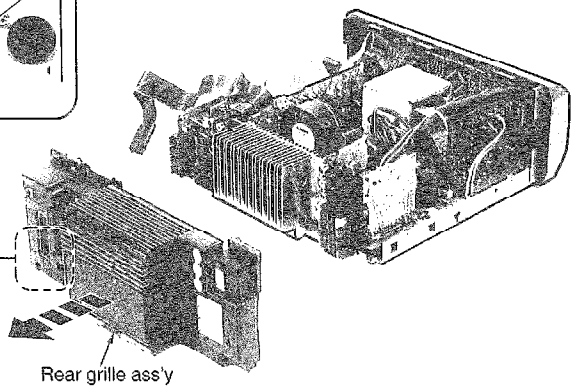




(Bottom)

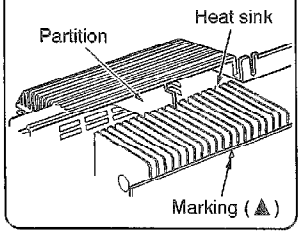
Step 3
Release the 3 claws, and then remove the rear grille ass'y.

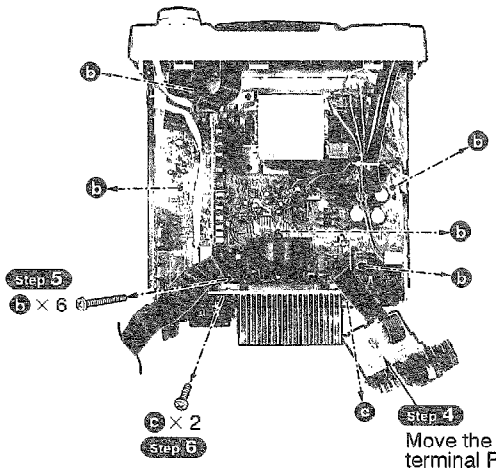


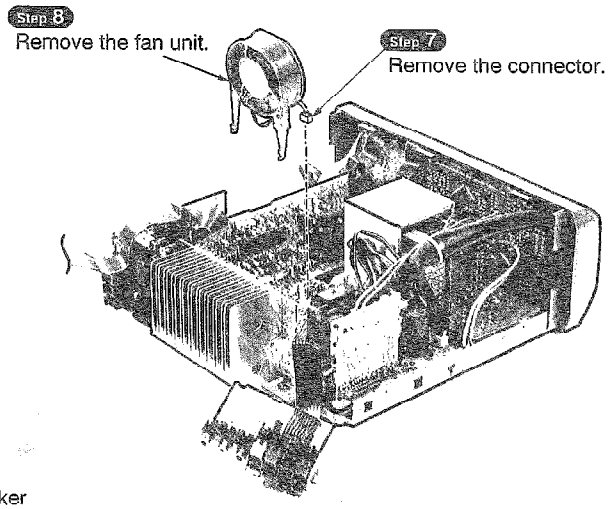


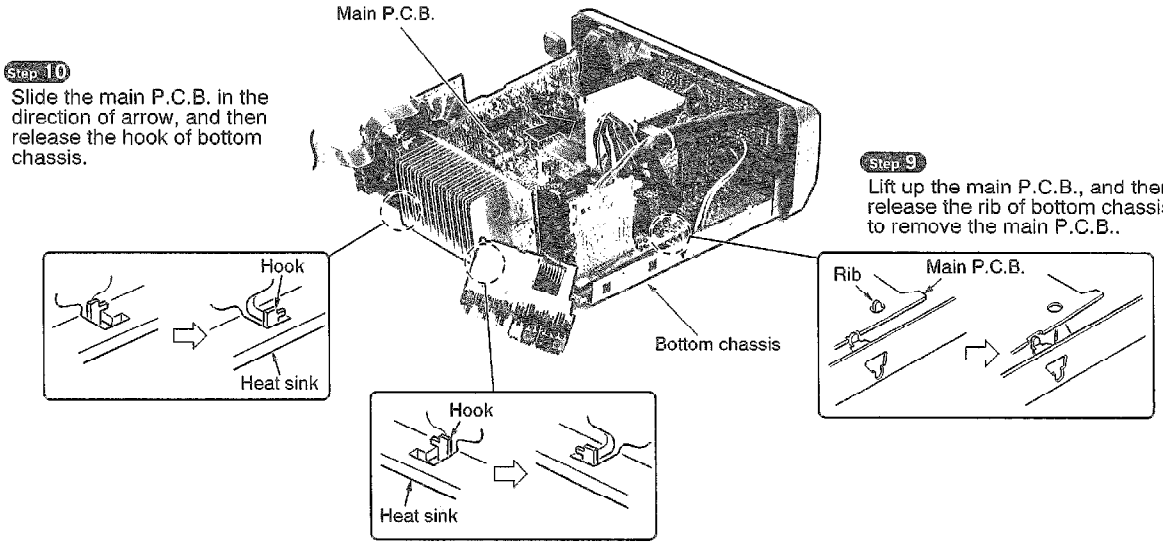
■ Notice for installation of rear grille ass'y

Align the partition of rear grille ass'y with the marking (▲) on the heat sink.

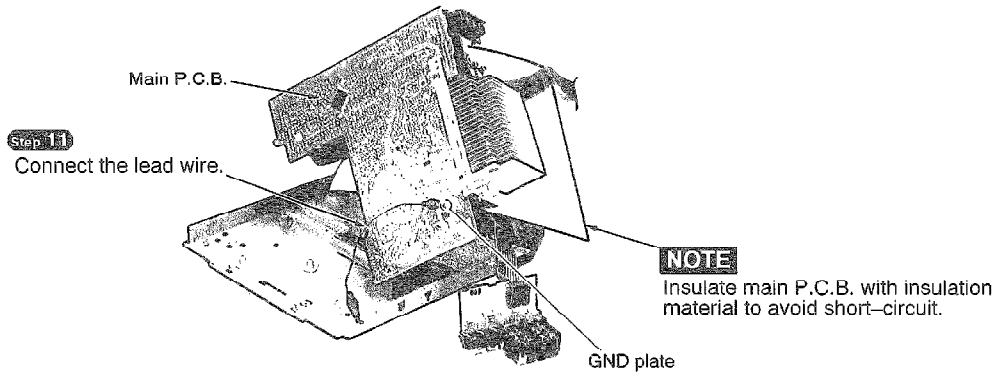







Main P.C.B.
Step 10
Slide the main P.C.B. in the direction of arrow, and then release the hook of bottom chassis.
Hook
Heat sink
Step 9
Lift up the main P.C.B., and then release the rib of bottom chassis to remove the main P.C.B..
Rib
Main P.C.B.
Bottom chassis
Hook
Heat sink

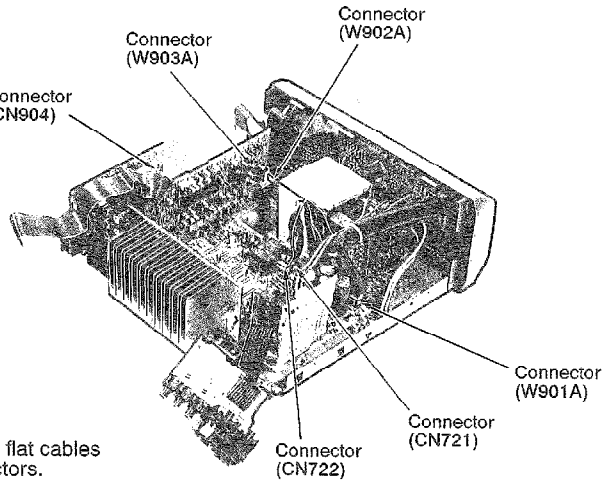
• Check the main P.C.B. as shown below.



Main Component Replacement procedures

1. Replacement for the power IC and regulator transistor

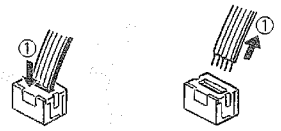
- Follow the Step 1 ~ Step 3 of the Item 1 in checking procedure for each P.C.B. on page 23.
- Follow the Step 1 ~ Step 10 of the item 3 in checking procedure for each P.C.B. on pages 24 and 25.



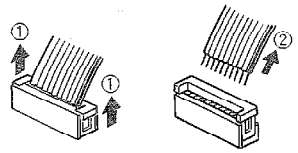
Step 1
Remove the flat cables from connectors.

Removal of the connector

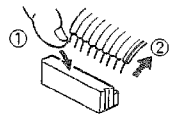
- Connector (CN904)

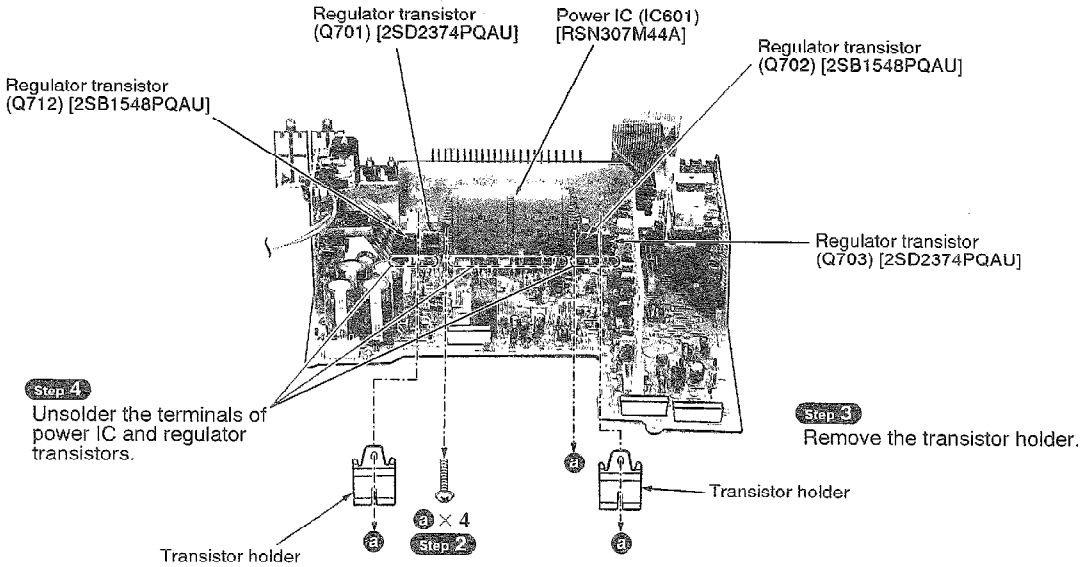


- Connectors (W901A, W902A, W903A)



- Connectors (CN721, CN722)





Step 4
Unsolder the terminals of power IC and regulator transistors.

Step 2

Step 3
Remove the transistor holder.

NOTE
When mounting the power IC or regulator transistor apply silicone conpound (RFKX0002) to the rear side of power IC or regulator transistors.

■ To Supply Power Source

This unit SA-EH600 is designed to operate on power supplied from the system connected. (For system connection, refer to Fig.1)

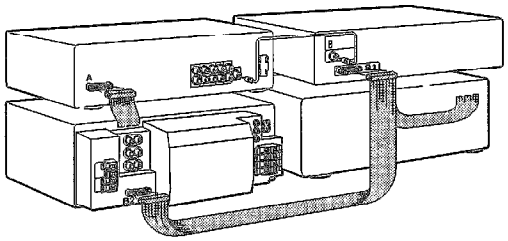


Fig. 1

When you have to test and service the unit SA-EH600 alone, use the following method to supply power source and operate the unit:

1. Short the section between **7 pin** and **10 pin** of the connector **W202** in Fig. 2.
2. Connect this unit to an AC Power Cord. (This unit come to stand-by mode.)
3. Turn the unit ON.

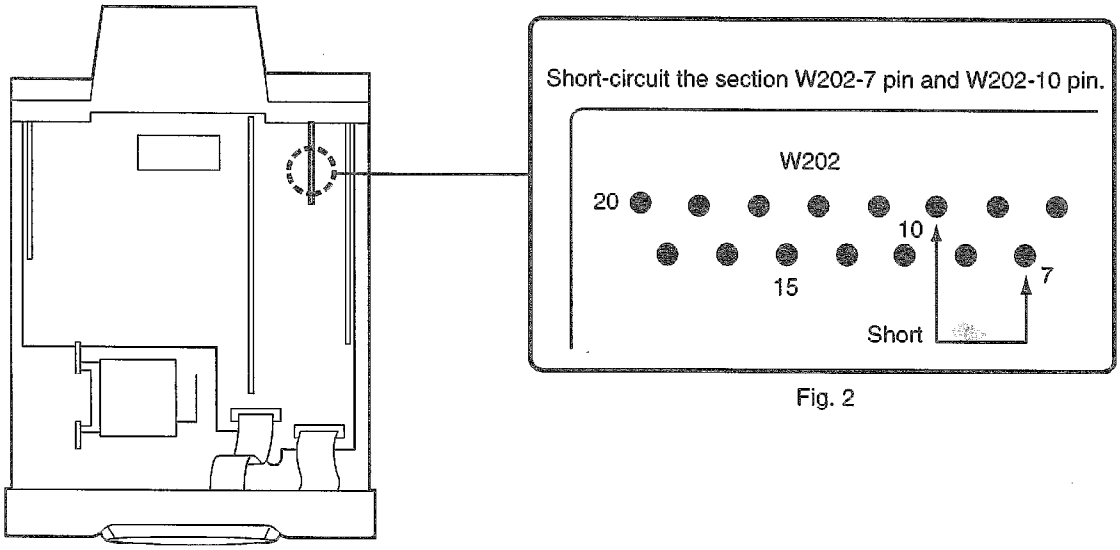


Fig. 2

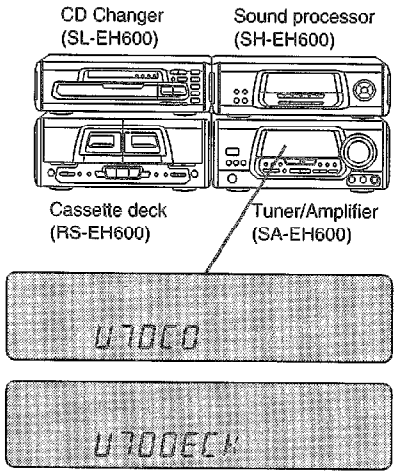
■ To Check Operation

1. Set this unit to Power ON mode.
2. Input a signal and confirm it to be outputted from the speaker terminal.

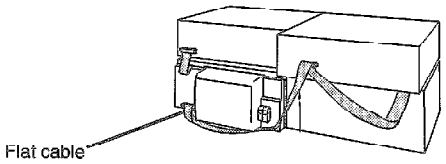
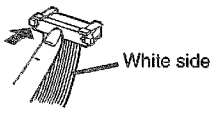
	INPUT	OUTPUT
L-ch	EXT IN	L-ch speaker terminal
R-ch	EXT IN	L-ch speaker terminal
Surround	EXT IN	Surround speaker terminal
Center	EXT IN	Center speaker terminal

About the Self-Diagnostic Mode

This unit is equipped with a self-diagnostic function which, in the event of a malfunction, automatically displays a code indicating the nature of the malfunction. Use this self-diagnostic function when servicing the unit.

Display method	Display location
To display the malfunction code U-70 CD: U-70 DECK: ..... Automatically displays on the tuner/sound processor when a malfunction occurs. F-61 ..... Automatically displays on the tuner/sound processor when a malfunction occurs. **To return to the normal display** 1. For U-70 CD/U-70 DECK: • Press an any operation button on the tuner/amplifier. • To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again. 2. For F-61: • If "F-61" is displayed, the power will automatically be switched off and the standby indicator will light up. • "F-61" will be displayed for 3 seconds, and then the clock will be displayed. • To re-display the code, switch the power on. "F-61" will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off.	

Display contents

Display code	Problem or condition	Correction procedure
U-70 CD **U-70 DECK** (displayed automatically)	A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating. 1.If "U-70" is displayed on the tuner/amplifier, the tape deck or CD Changer cannot be operated by remote control.	 1. To check for correct insertion of the flat cables. ①Insert each connector until you hear a click. ②Insert the flat cables at the back of the unit in the order indicated. Make sure the white side of the cable is on your right side.  2. Breakage of flat cable. (Check and replace as necessary.) 3. If the problem is not corrected by items (1.) and (2.) above, this indicates a faulty IC. **SA-EH600:** IC901 (M38199MF105K) **SL-EH600:** IC901 (M38067MC388F) **RS-EH600:** IC701 (M37471M4679F) Check these IC's and replace as necessary.
F-61	When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.	• Faulty Tuner/Amplifier (SA-EH600) output IC (IC601). (When a DC voltage is applied to the speaker terminals.)

■ Schematic Diagram

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C MIC JACK CIRCUIT 34
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G POWER SUPPLY CIRCUIT
for (GN) area 43, 44
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H SPEAKER TERMINAL CIRCUIT 44
I POWER TRANSFORMER (A) CIRCUIT
for (GN) area 44
for (GC) area 45
J POWER TRANSFORMER (B) CIRCUIT
for (GN) area 44
for (GC) area 45

• **This schematic diagram may be modified at any time with the development of new technology.**

Notes:

- **S701** : Voltage select switch (VOL ADJ) **[(GC) area only]**
- **S901** : Power "STANDBY ⏻ /ON" switch (POWER STANDBY ⏻ /ON)
- **S902** : Clock/timer switch (CLOCK/TIMER)
- **S903** : Record timer switch (⏲REC)
- **S904** : Play timer switch (⏲PLAY)
- **S905** : Tuning mode select switch (TUNING MODE)
- **S906** : Set switch (SET)
- **S907** : FM mode select switch (FM AUTO/MONO)
- **S908** : Source input select switch (INPUT SELECTOR)
- **S909** : Tuning down switch (TUNING ∨)
- **S910** : Tuning up switch (TUNING ∧)
- **S911** : Tuner/band select switch (TUNER/BAND)
- **S912** : Super woofer switch (S.WOOFER)
- **S913** : Karaoke switch (KARAOKE)
- **S914** : Echo switch (ECHO)
- **VR401** : MIC volume control (MIC VOL)
- **VR901** : Volume control (VOLUME)

• Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
No mark: FM ( ) : AM

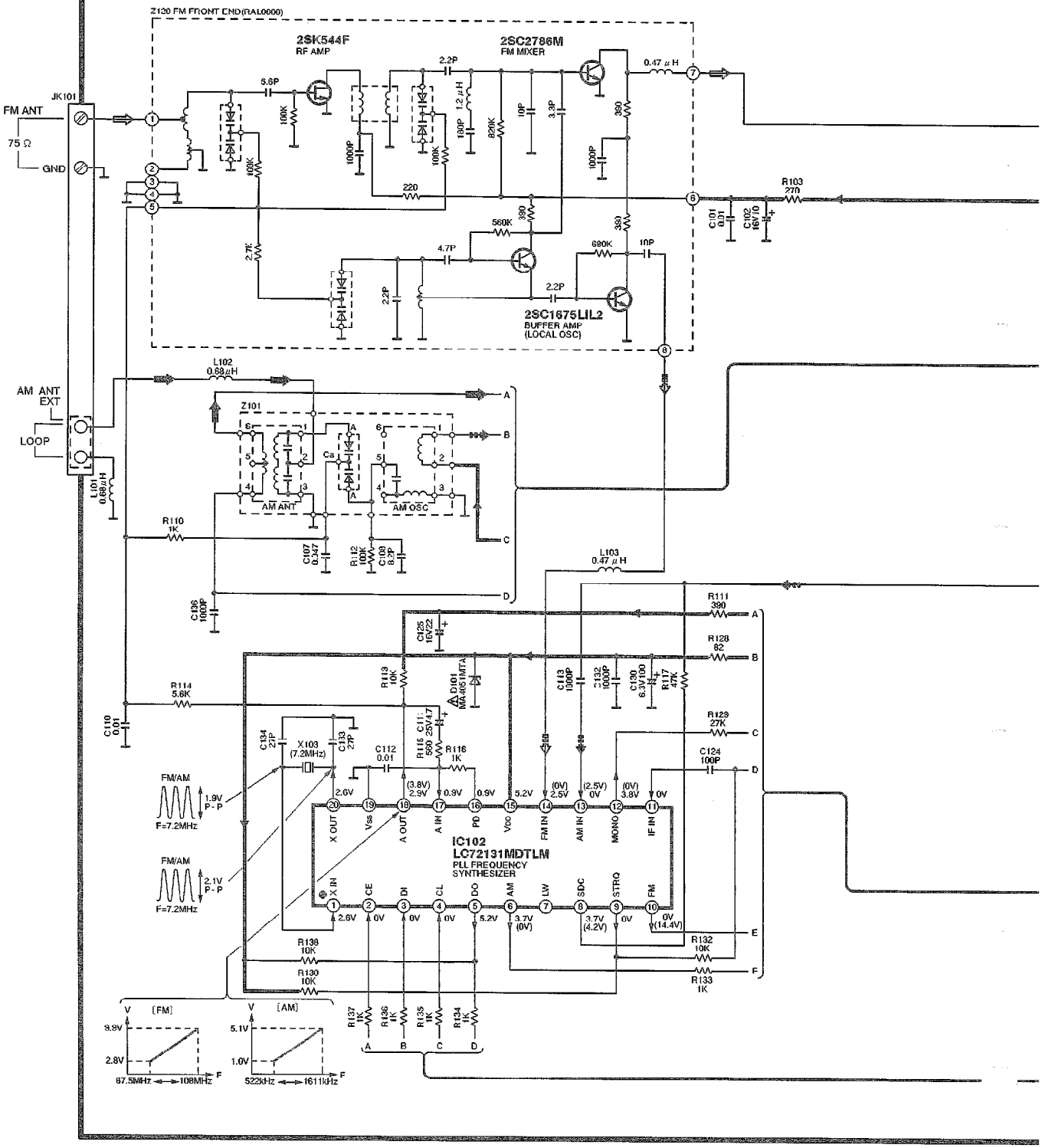
• Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

• **Caution!**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

• **Voltage and signal line**

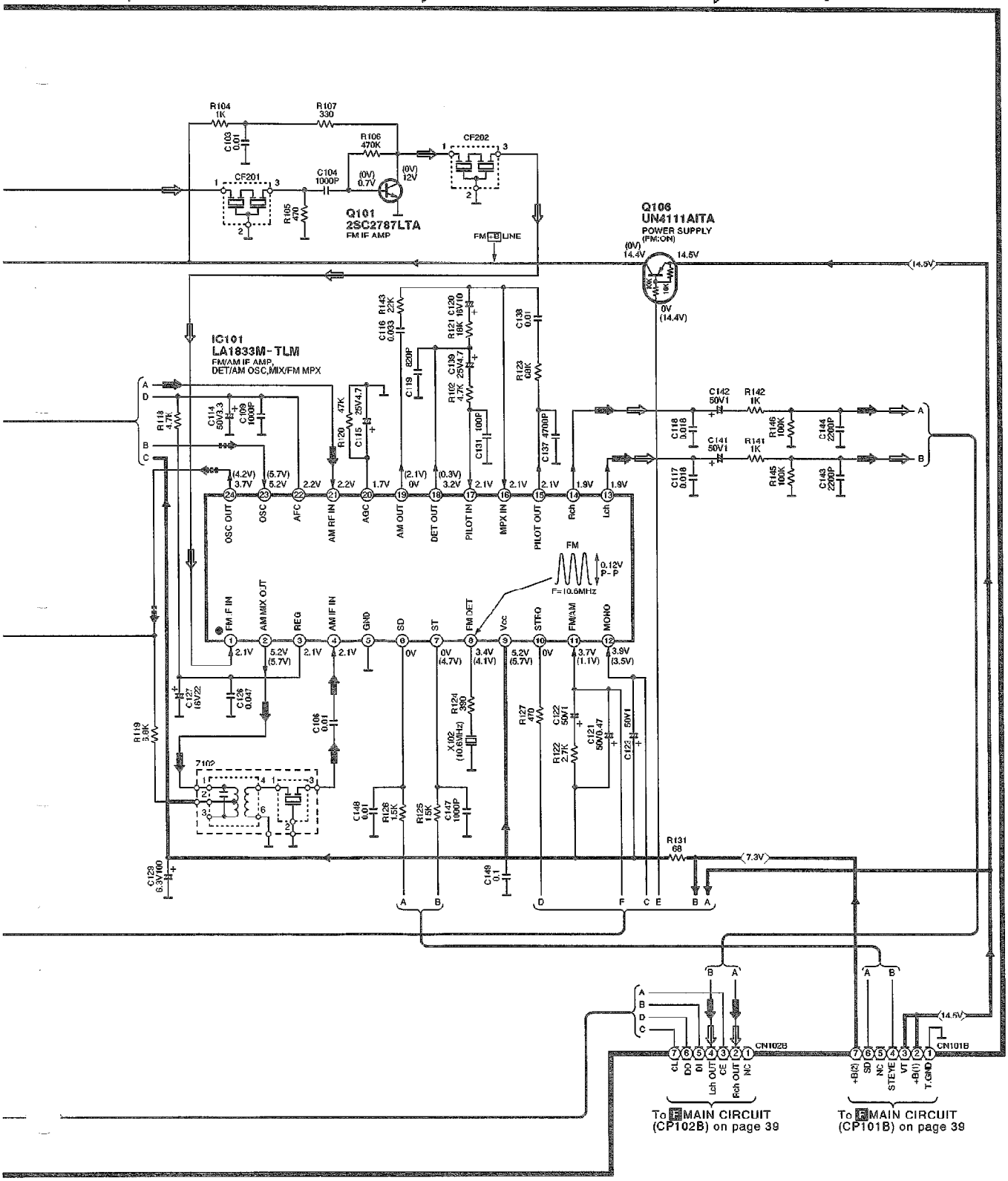
- : Positive voltage line
- : Negative voltage line
- : AM signal Line
- : Mic signal Line
- : AM OSC signal line
- : Surround Speaker Drive signal line
- : FM signal line
- : Center Speaker Drive signal line
- : FM OSC signal line

A TUNER CIRCUIT (P.C.Board:on page 46)

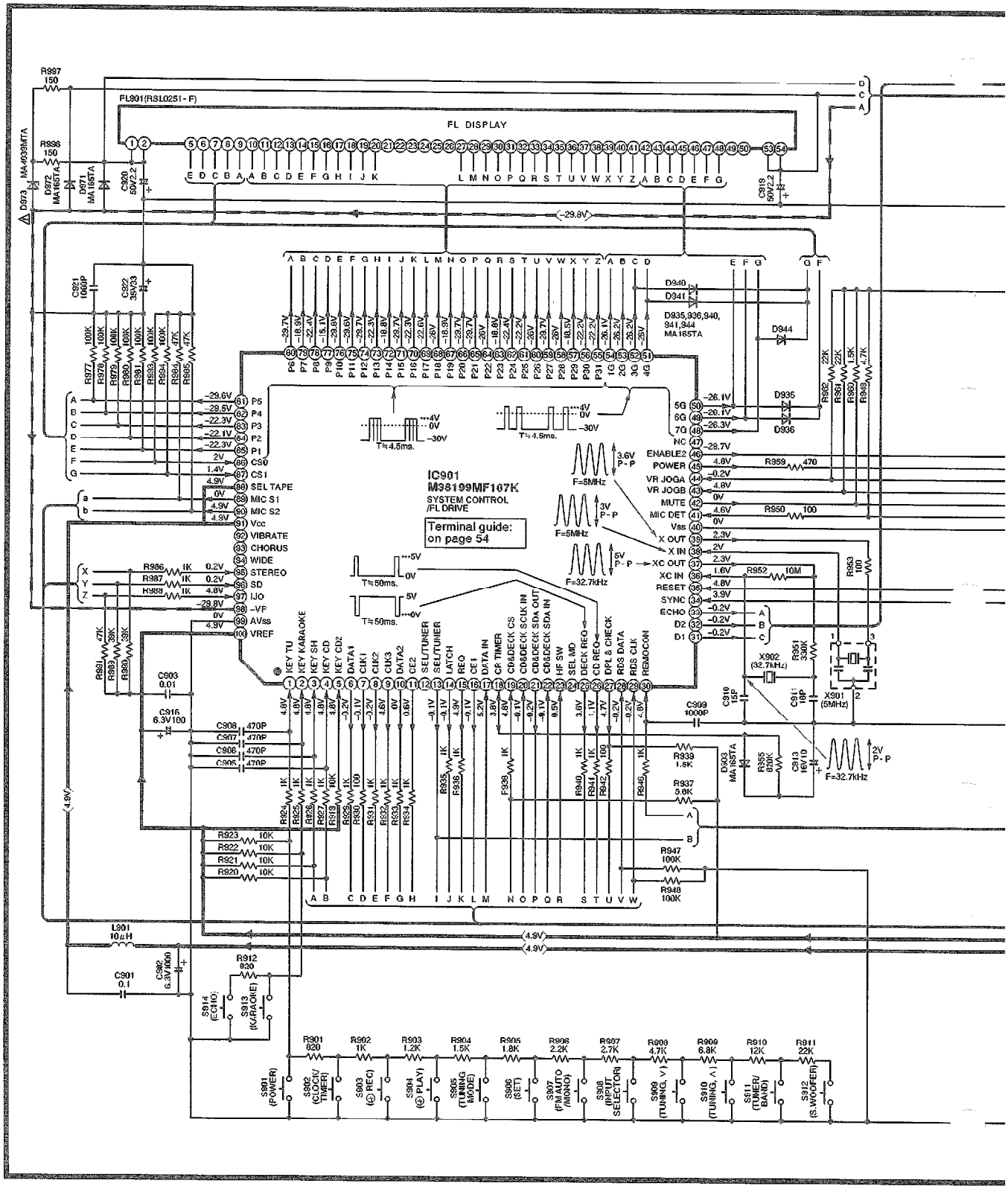


: Positive voltage line : Negative voltage line : AM signal Line

: AM OSC signal line : FM signal line : FM OSC signal line

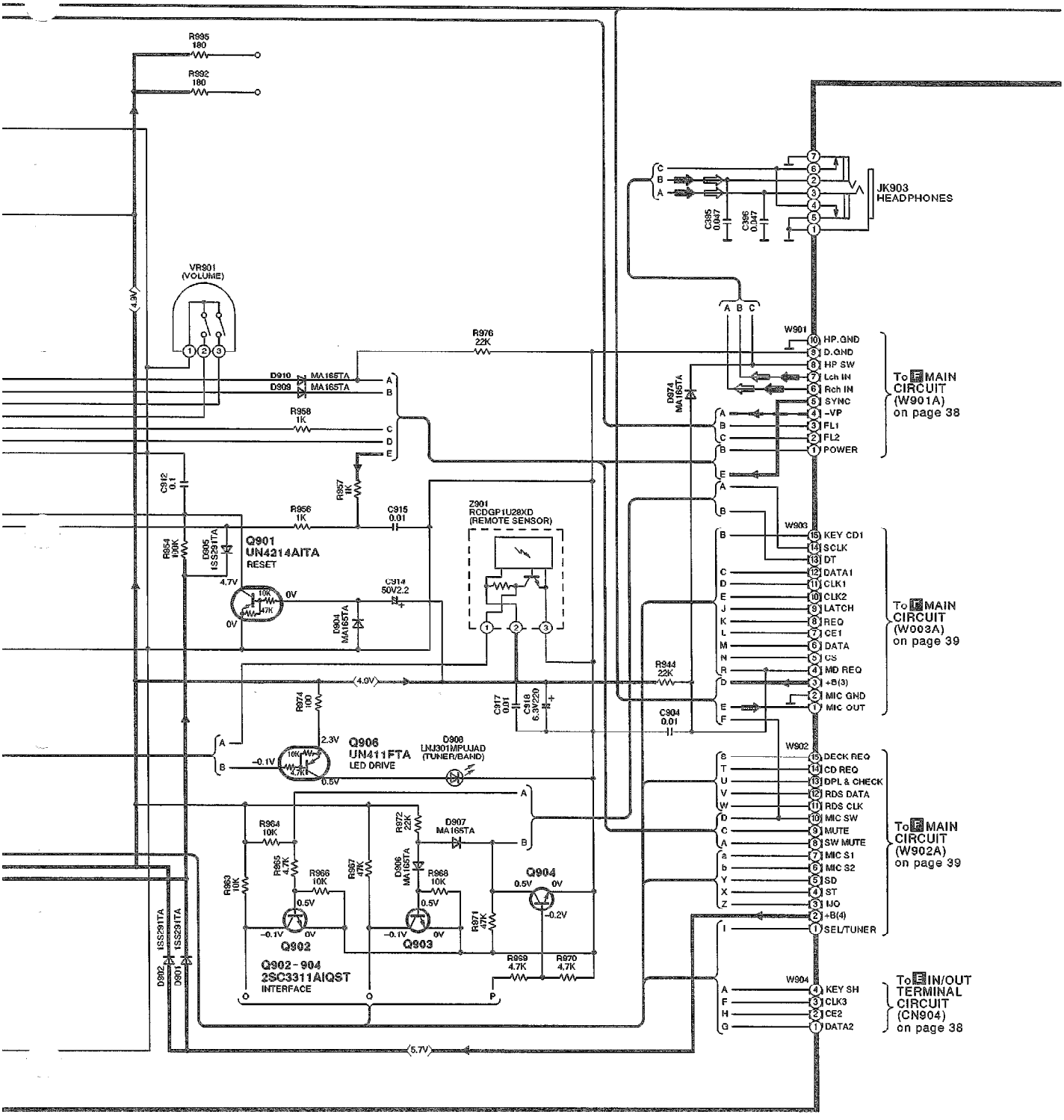


B OPERATION CIRCUIT (P.C.Board:on page 46)



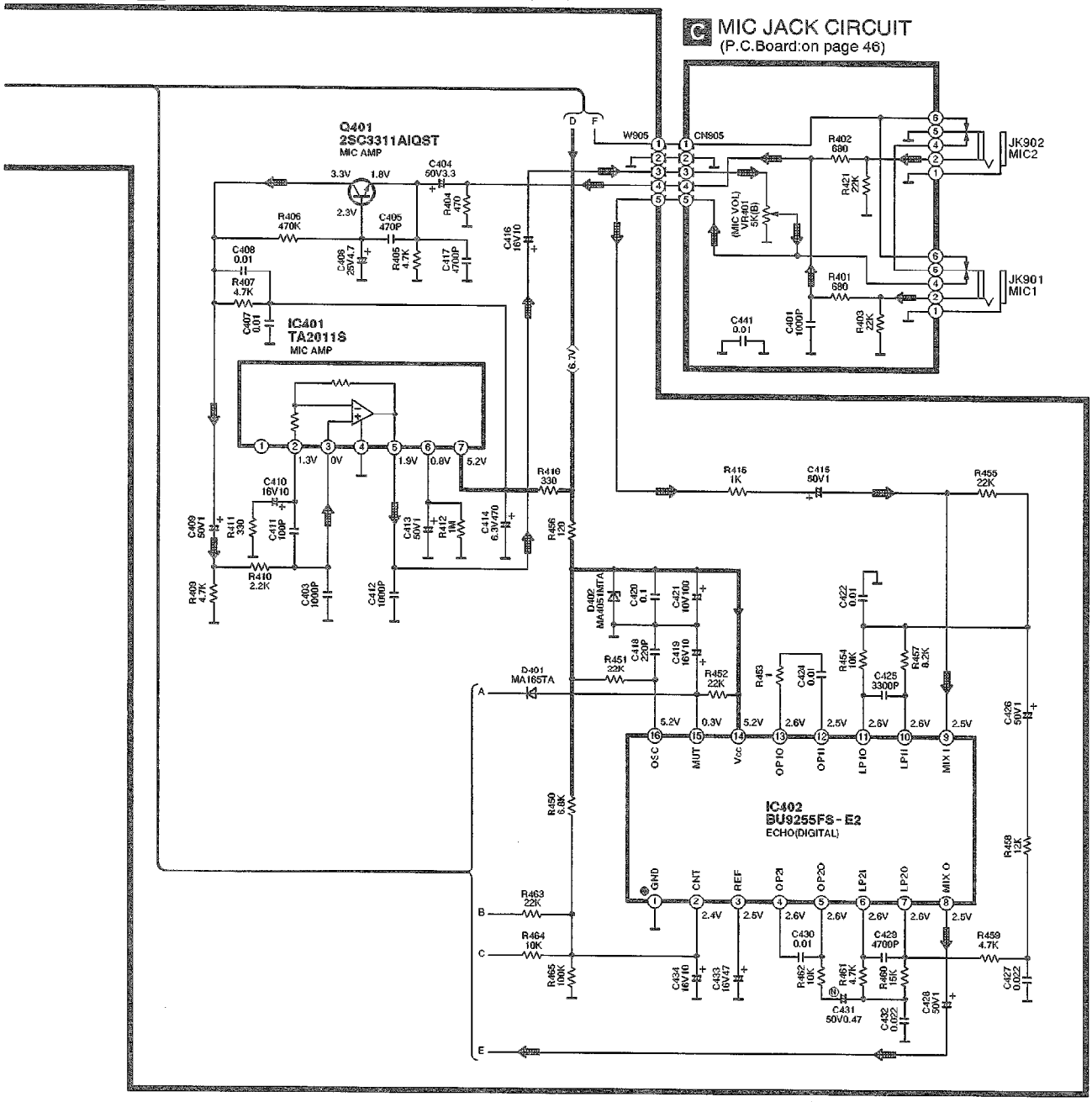
: Positive voltage line : Negative voltage line

: AM signal Line : FM signal line : Mic signal Line



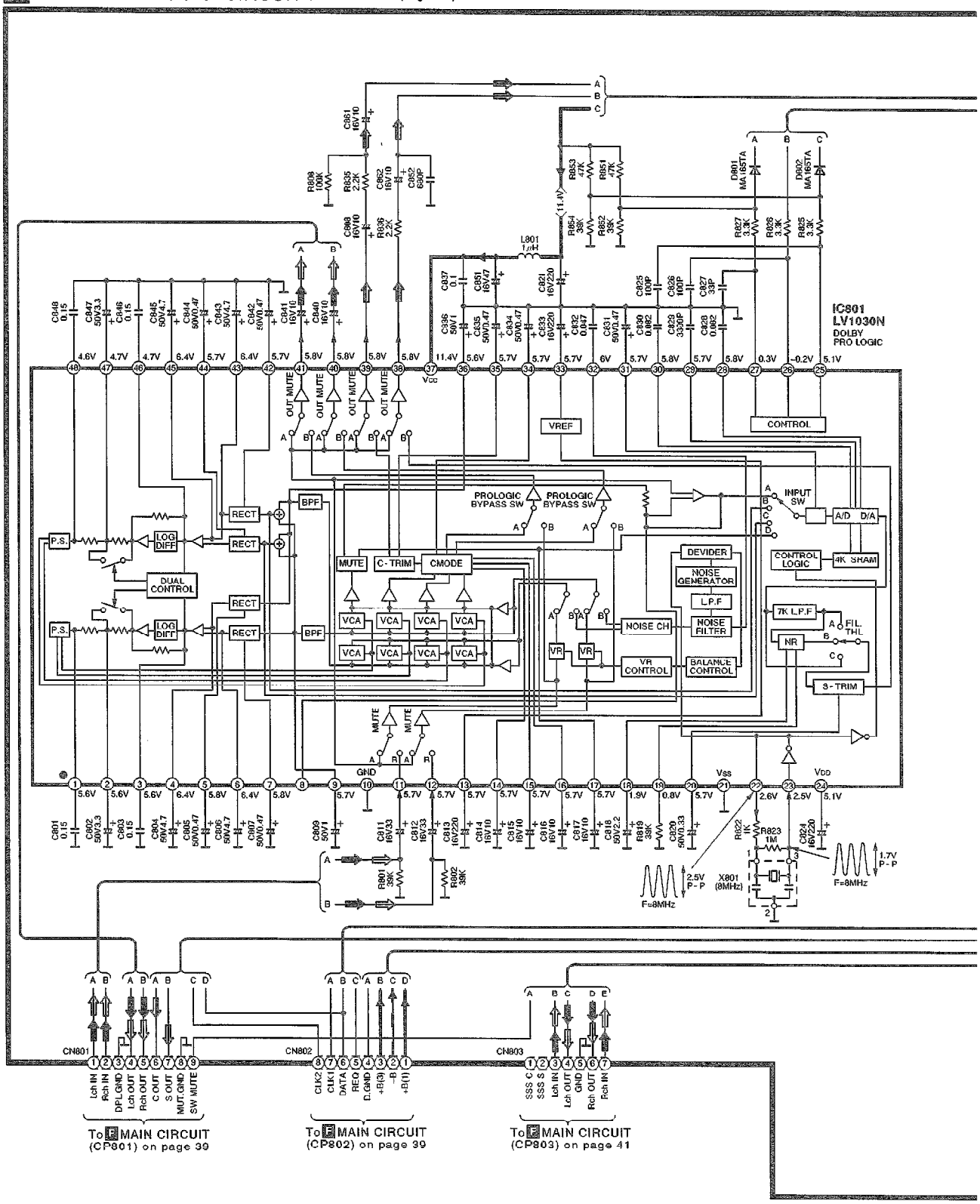
B OPERATION CIRCUIT (P.C.Board:on page 46)

C MIC JACK CIRCUIT (P.C.Board:on page 46)

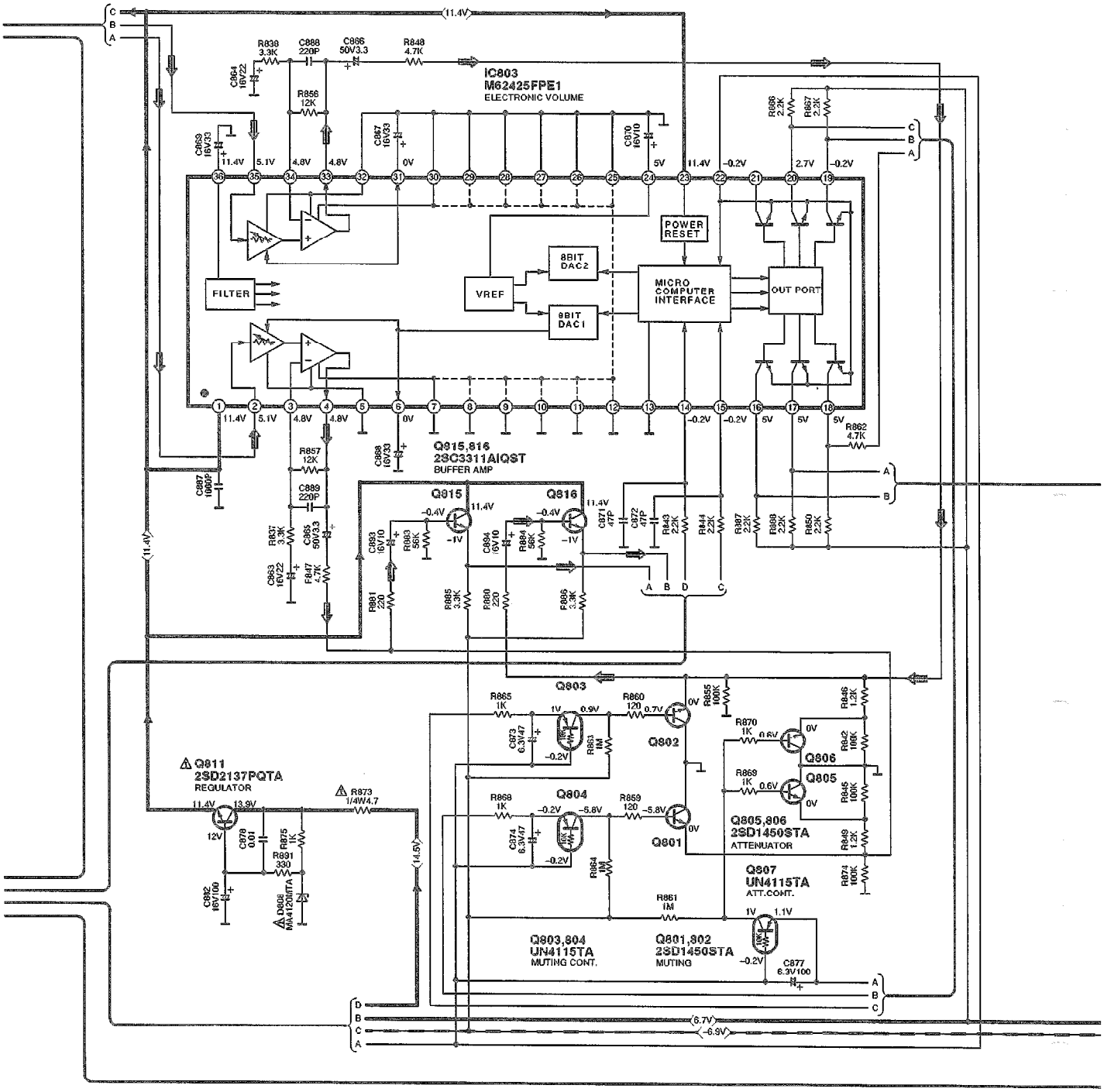


: Positive voltage line
: Negative voltage line
: AM signal Line
: FM signal line
: Mic signal Line
: Surround Speaker Drive signal line
: Center Speaker Drive signal line

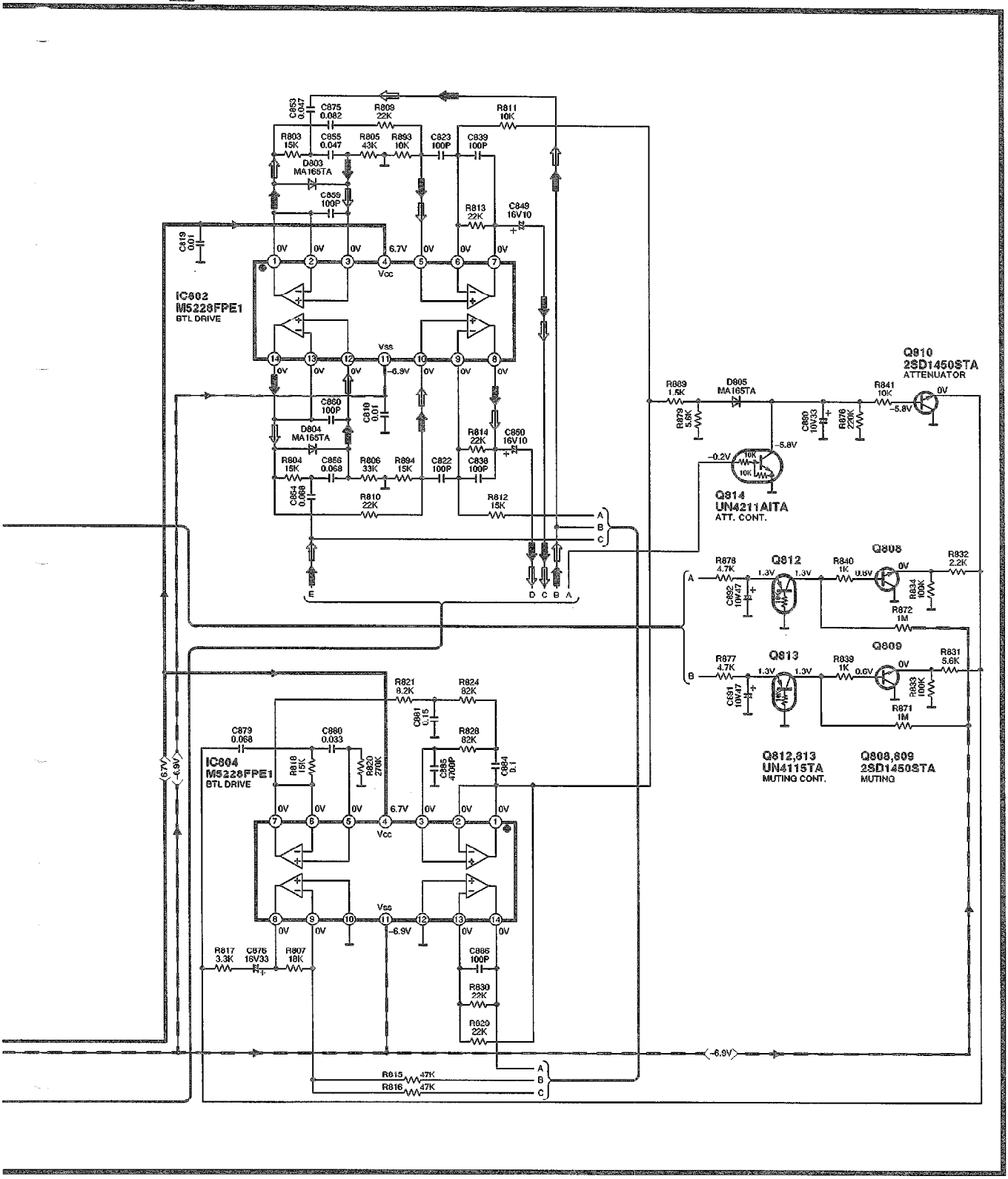
D DOLBY PROLOGIC CIRCUIT (P.C.Board:on page 49)



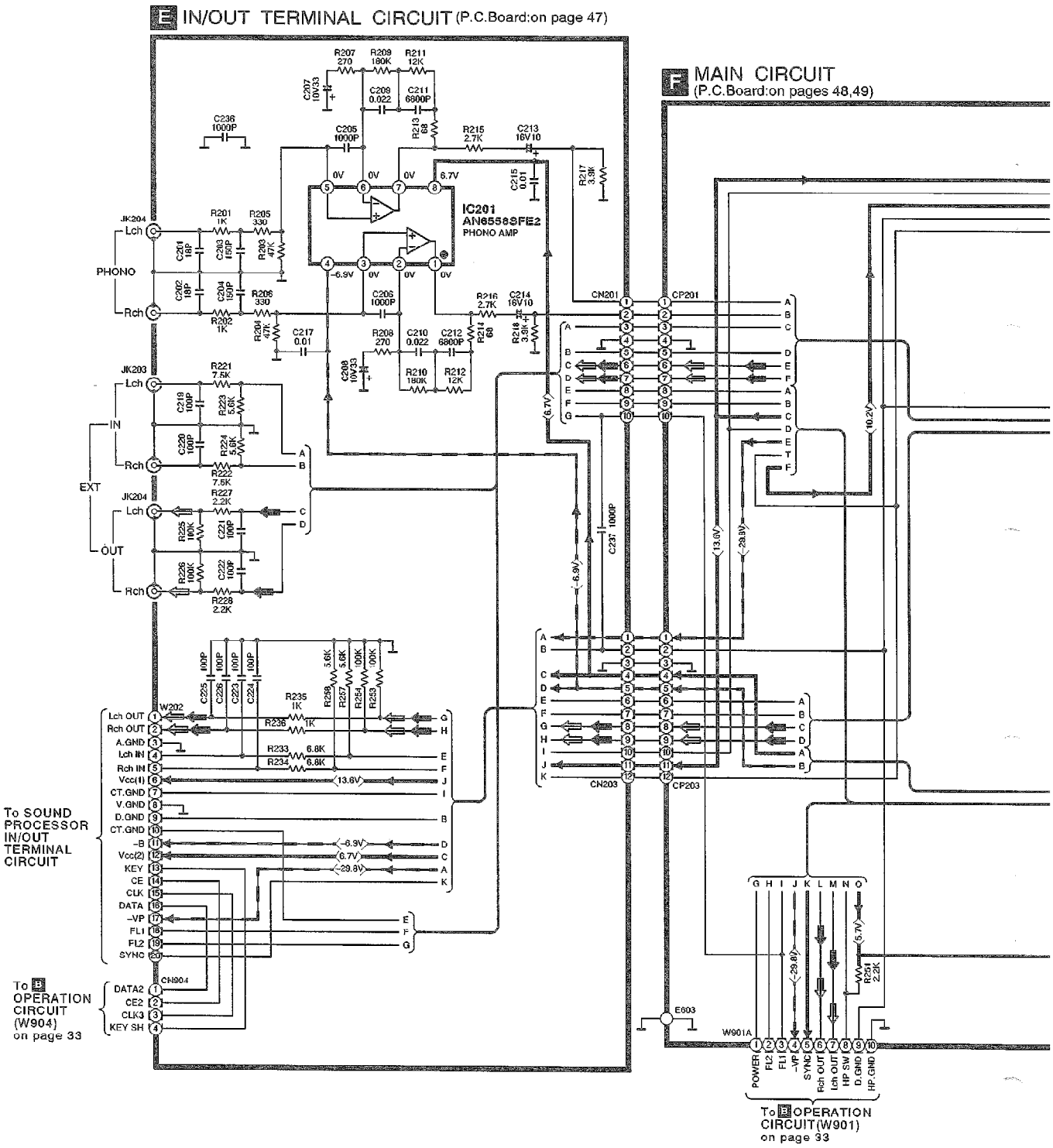
: Positive voltage line
: AM signal Line
: FM signal line
: Negative voltage line
: Surround Speaker Drive signal line
: Center Speaker Drive signal line

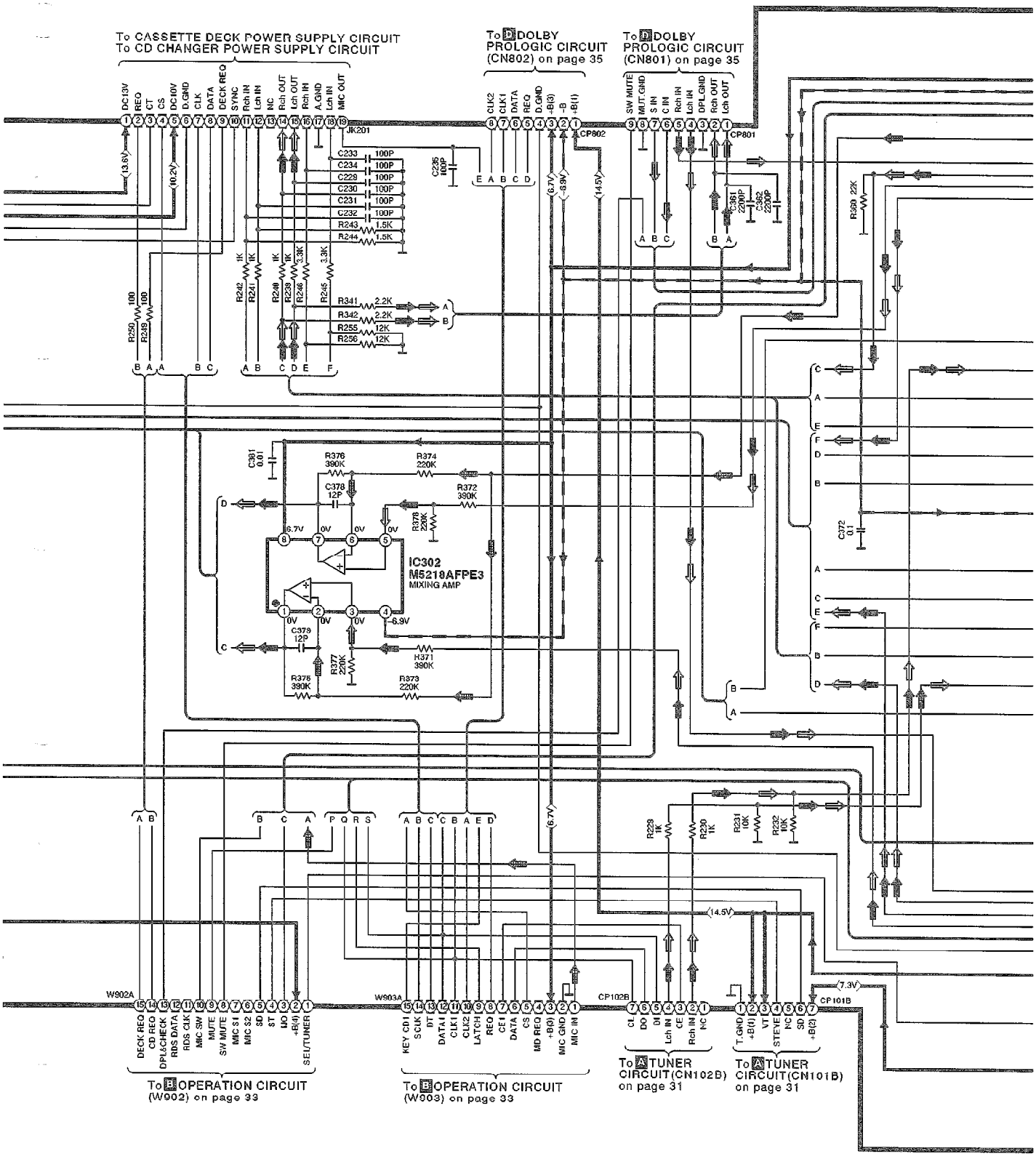


D DOLBY PROLOGIC CIRCUIT (P.C.Board:on page 49)

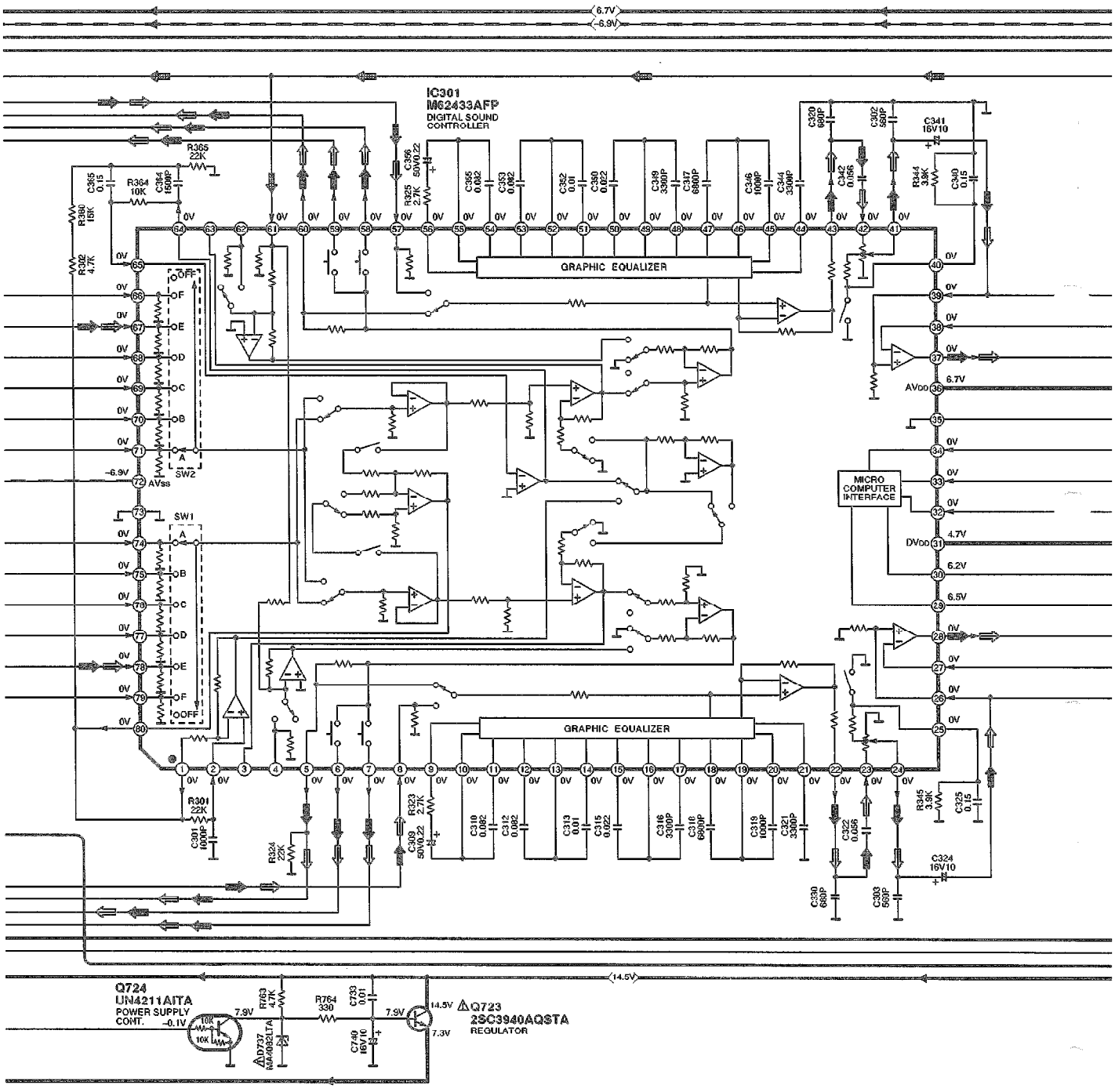


: Positive voltage line
: Negative voltage line
: Mic signal Line
: AM signal Line
: Surround Speaker Drive signal line
: FM signal line
: Center Speaker Drive signal line



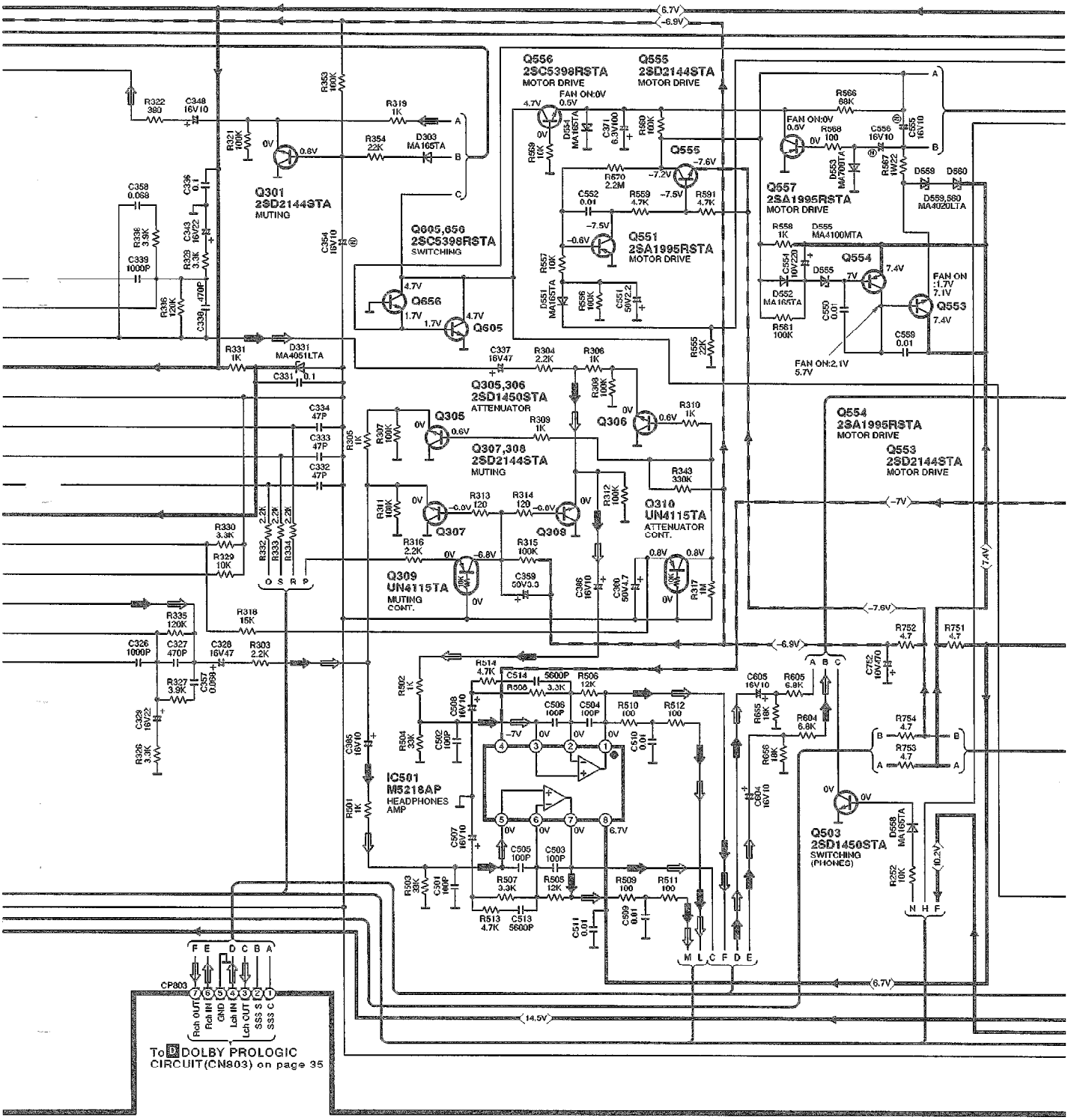

To CASSETTE DECK POWER SUPPLY CIRCUIT
To CD CHANGER POWER SUPPLY CIRCUIT
To D DOLBY PROLOGIC CIRCUIT (CN802) on page 35
To D DOLBY PROLOGIC CIRCUIT (CN801) on page 35
JK201
CP802
CP801
IC302
M5218AFPE3
MIXING AMP
To B OPERATION CIRCUIT (W902) on page 33
To B OPERATION CIRCUIT (W903) on page 33
To A TUNER CIRCUIT(CN102B) on page 31
To A TUNER CIRCUIT(CN101B) on page 31

F MAIN CIRCUIT (P.C.Board:on pages 48,49)

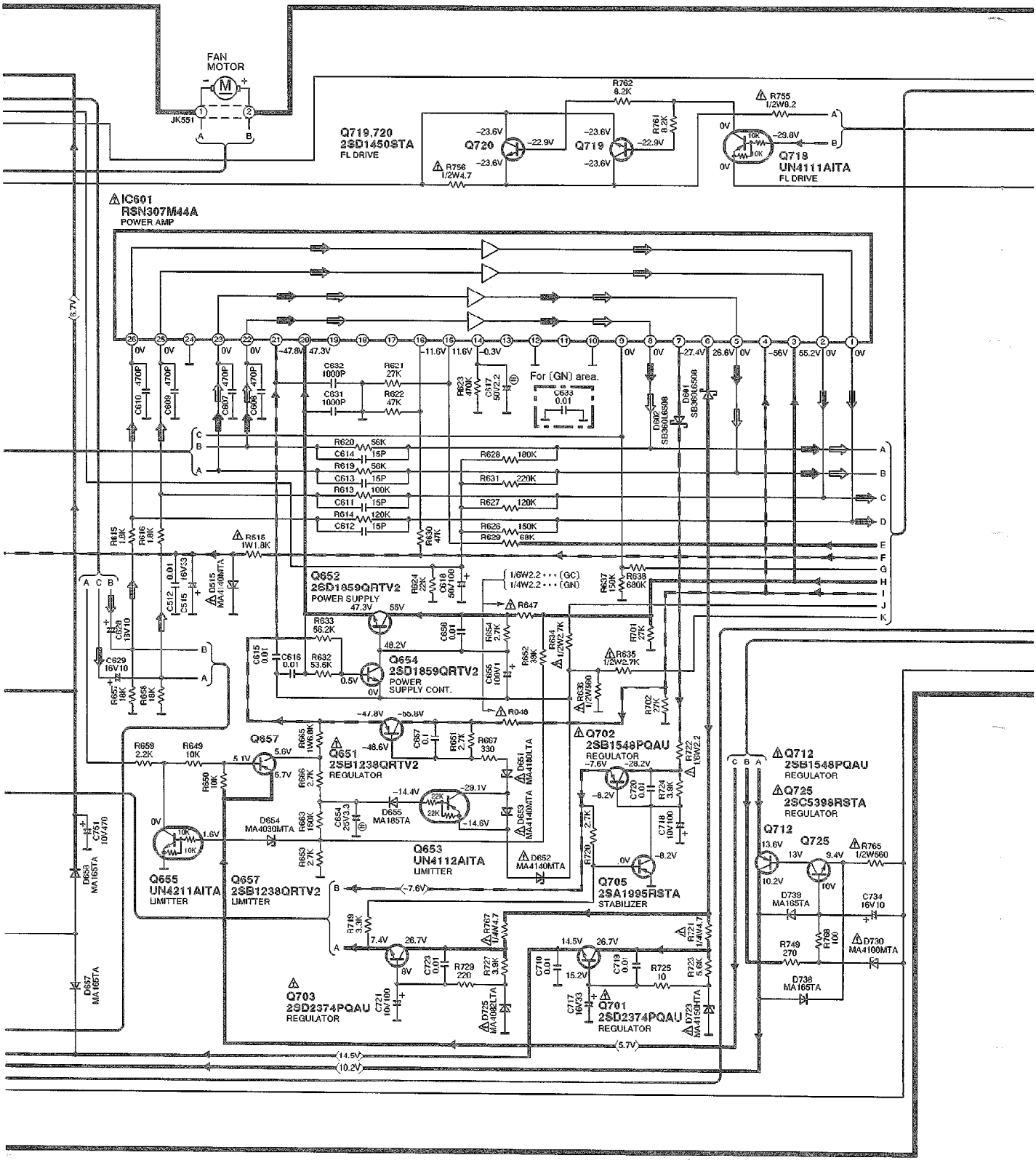


: Positive voltage line : Negative voltage line

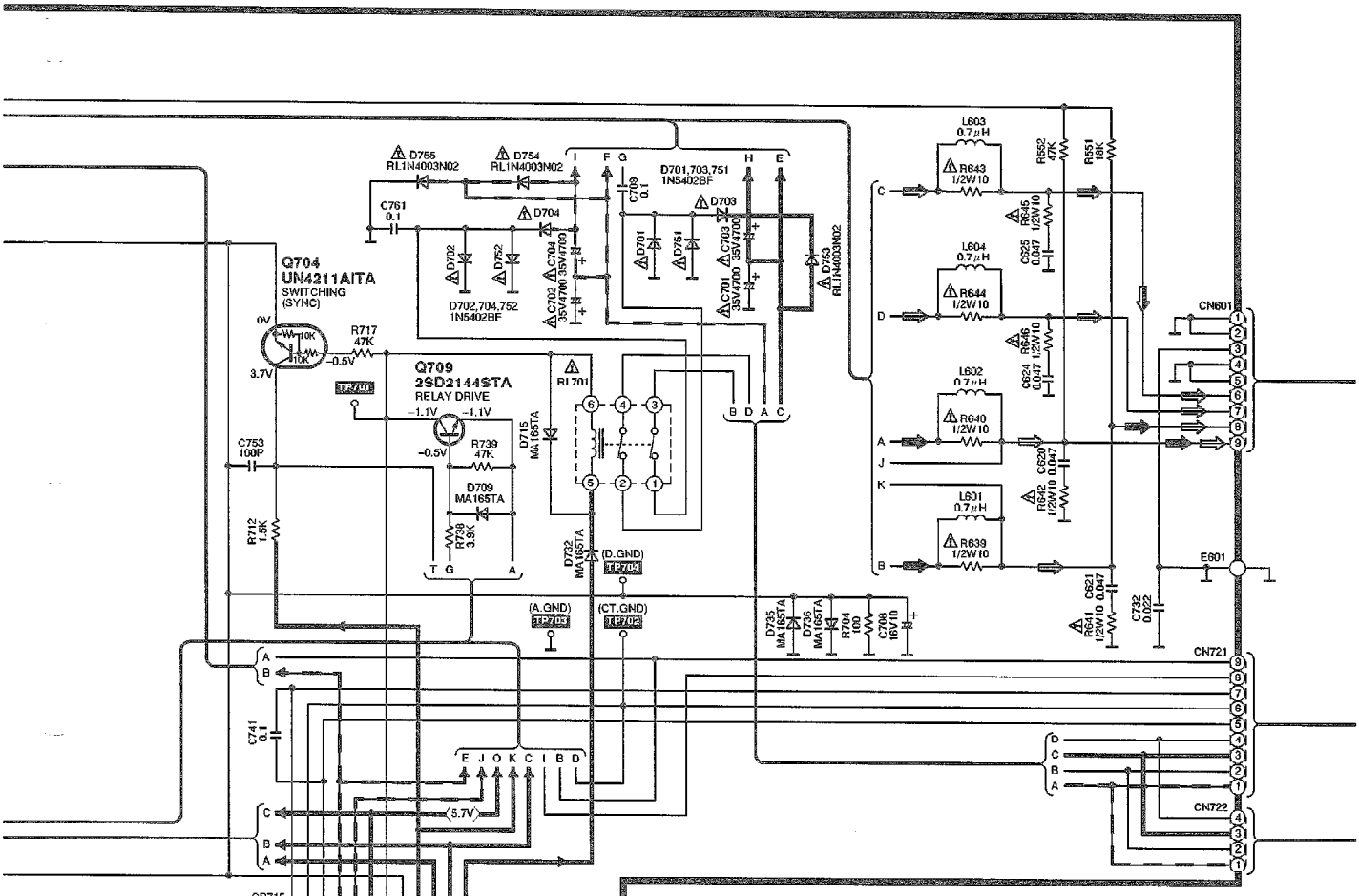
: Mic signal Line : AM signal Line : FM signal line



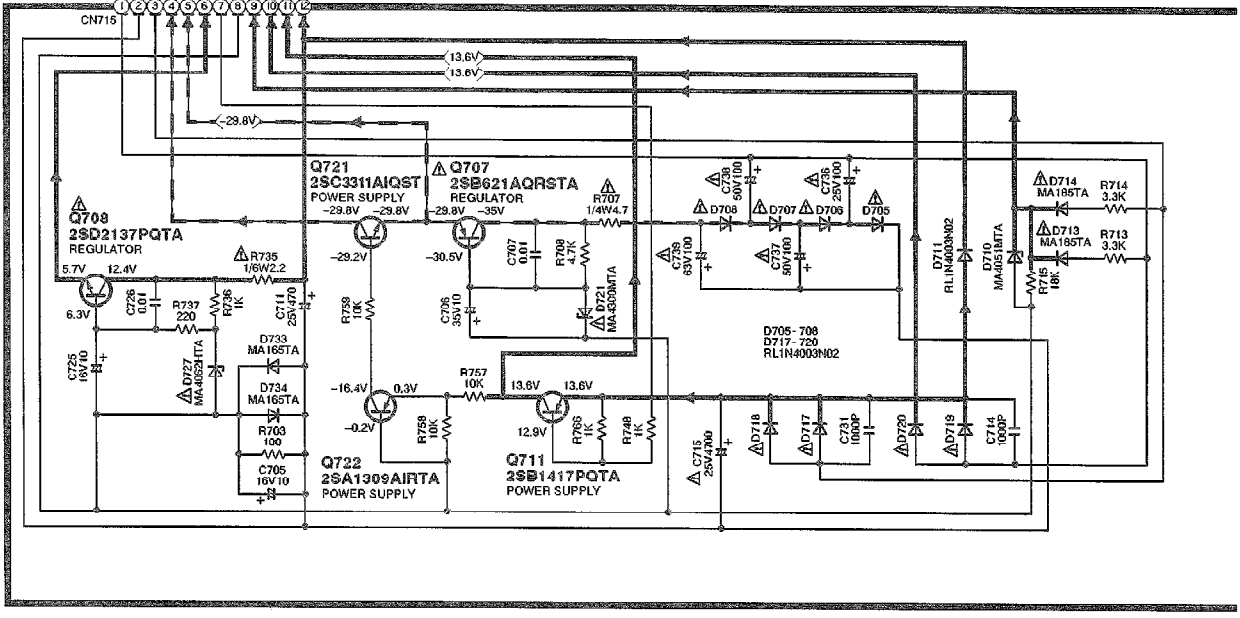
F MAIN CIRCUIT (P.C.Board:on pages 48,49)



: Positive voltage line
: AM signal Line
: FM signal line
: Negative voltage line
: Surround Speaker Drive signal line
: Center Speaker Drive signal line

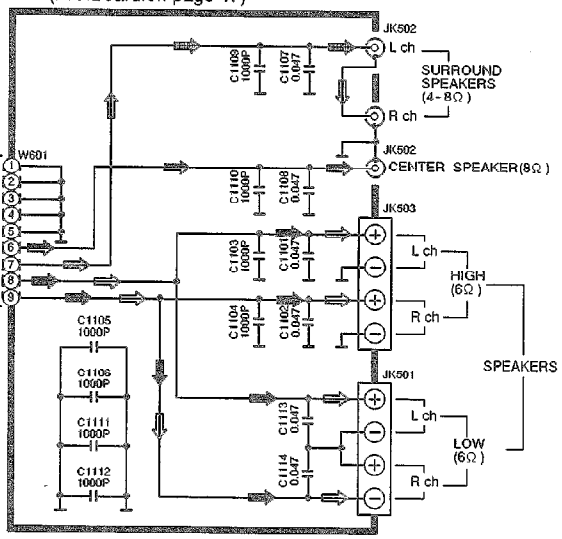


G POWER SUPPLY CIRCUIT (P.C.Board:on page 50)



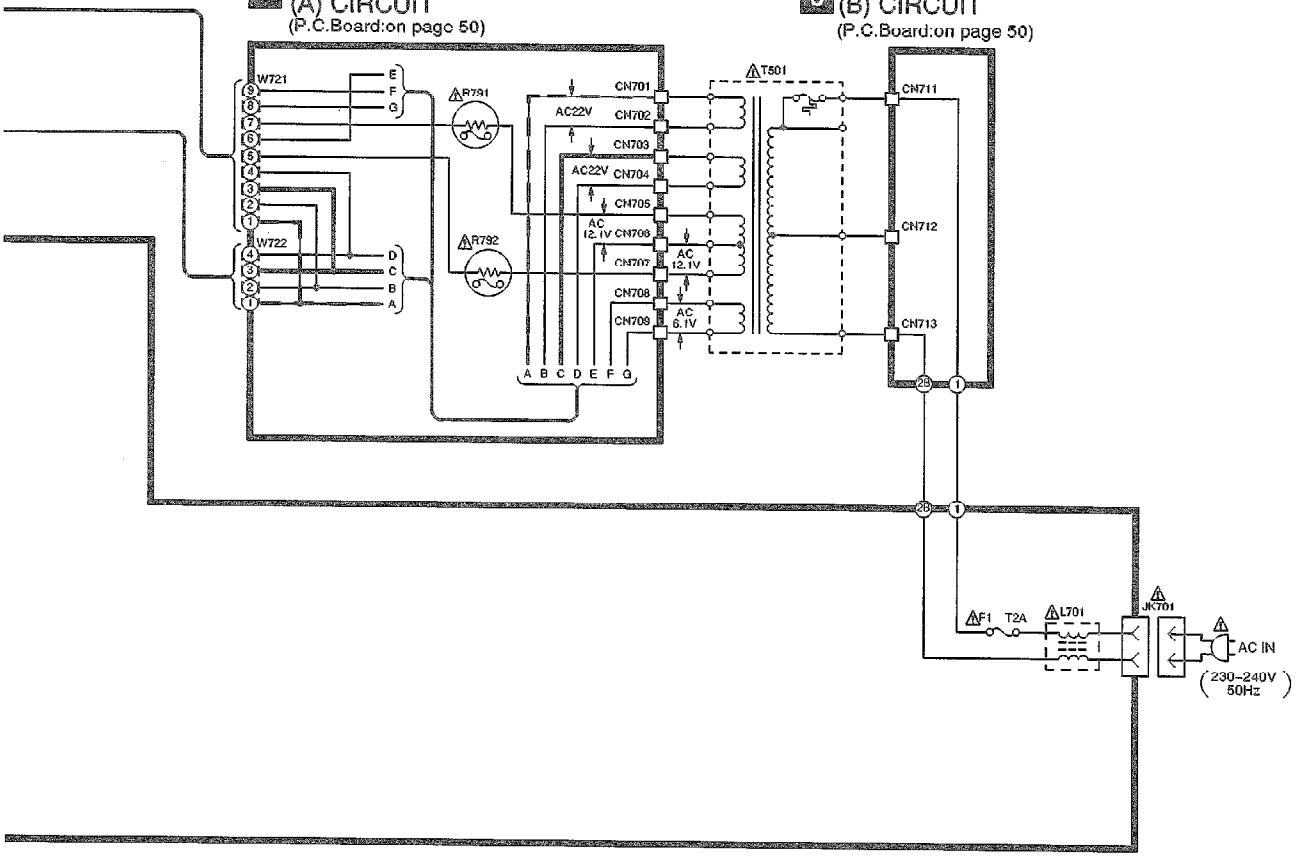
: Positive voltage line
: AM signal Line
: FM signal line
: Negative voltage line
: Surround Speaker Drive signal line
: Center Speaker Drive signal line

H SPEAKER TERMINAL CIRCUIT
(P.C.Board:on page 47)

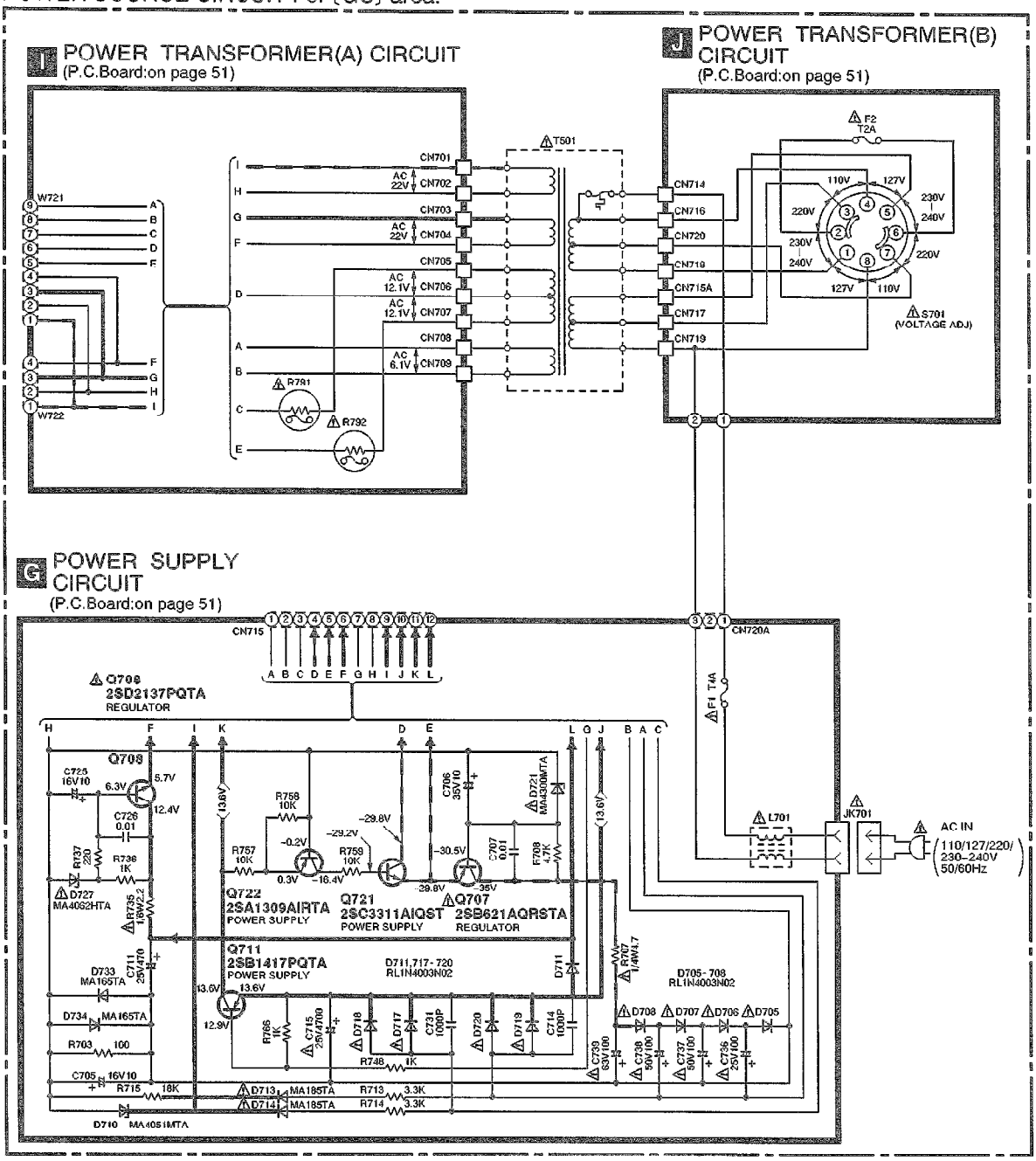


I POWER TRANSFORMER (A) CIRCUIT
(P.C.Board:on page 50)

J POWER TRANSFORMER (B) CIRCUIT
(P.C.Board:on page 50)



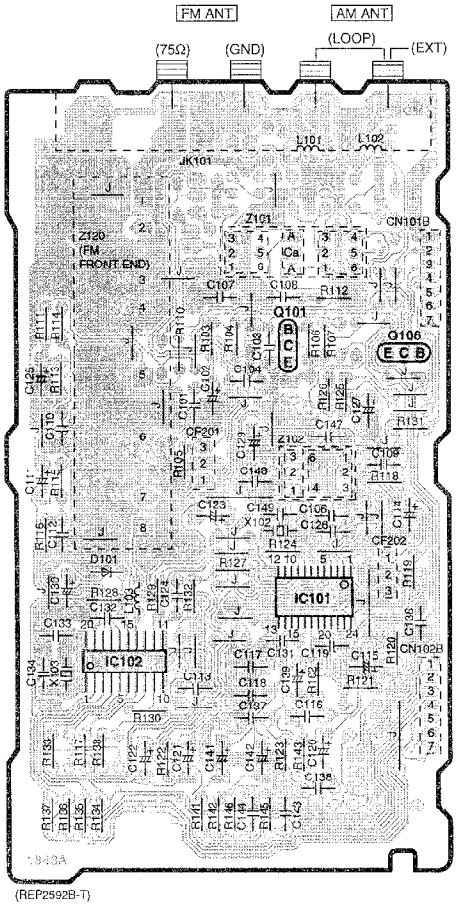
POWER SOURCE CIRCUIT For [GC] area.



■ Printed Circuit Board Diagram

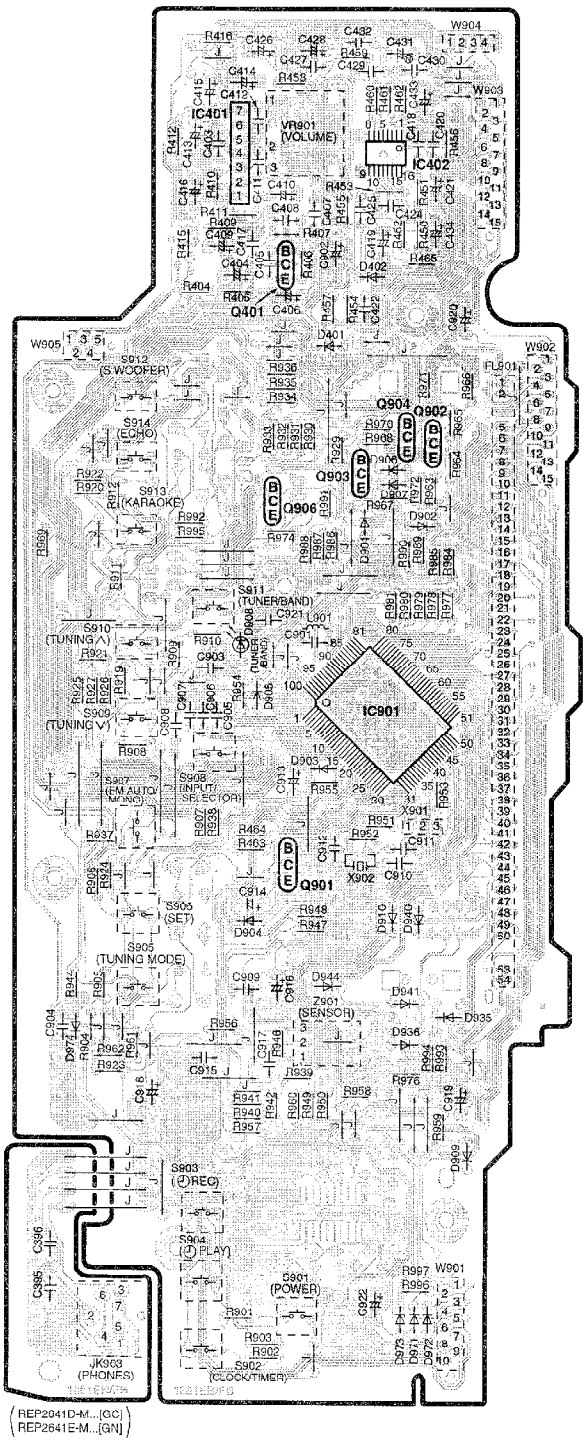
• This circuit board diagram may be modified at any time with the development of new technology.

A TUNER P.C.B.



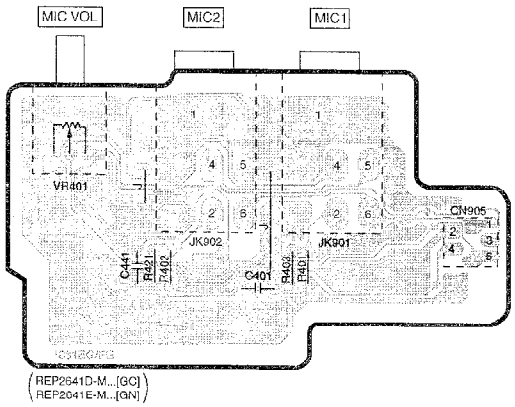
(REP2592B-T)

B OPERATION P.C.B.



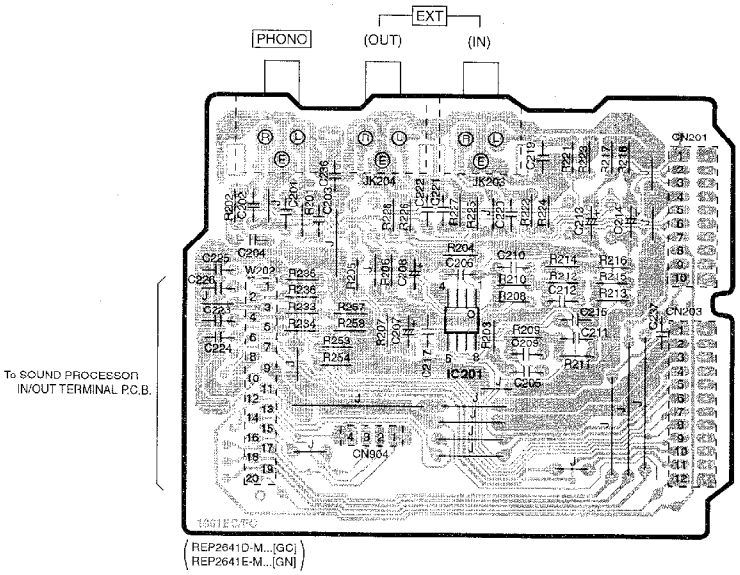
(REP2641D-M...[GC])
(REP2641E-M...[GN])

C MIC JACK P.C.B.

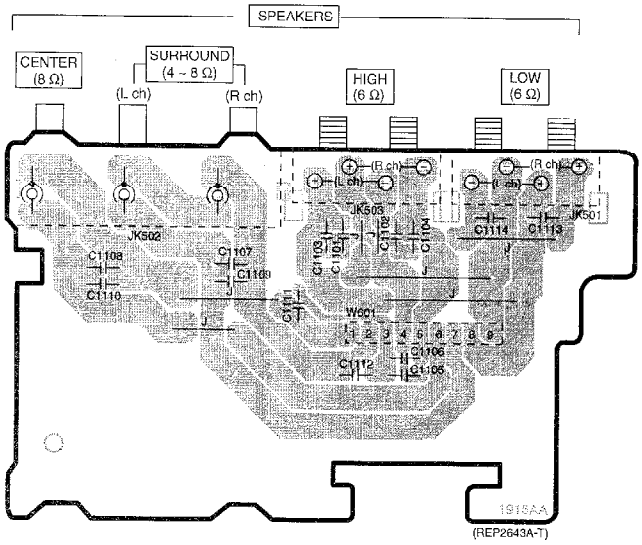


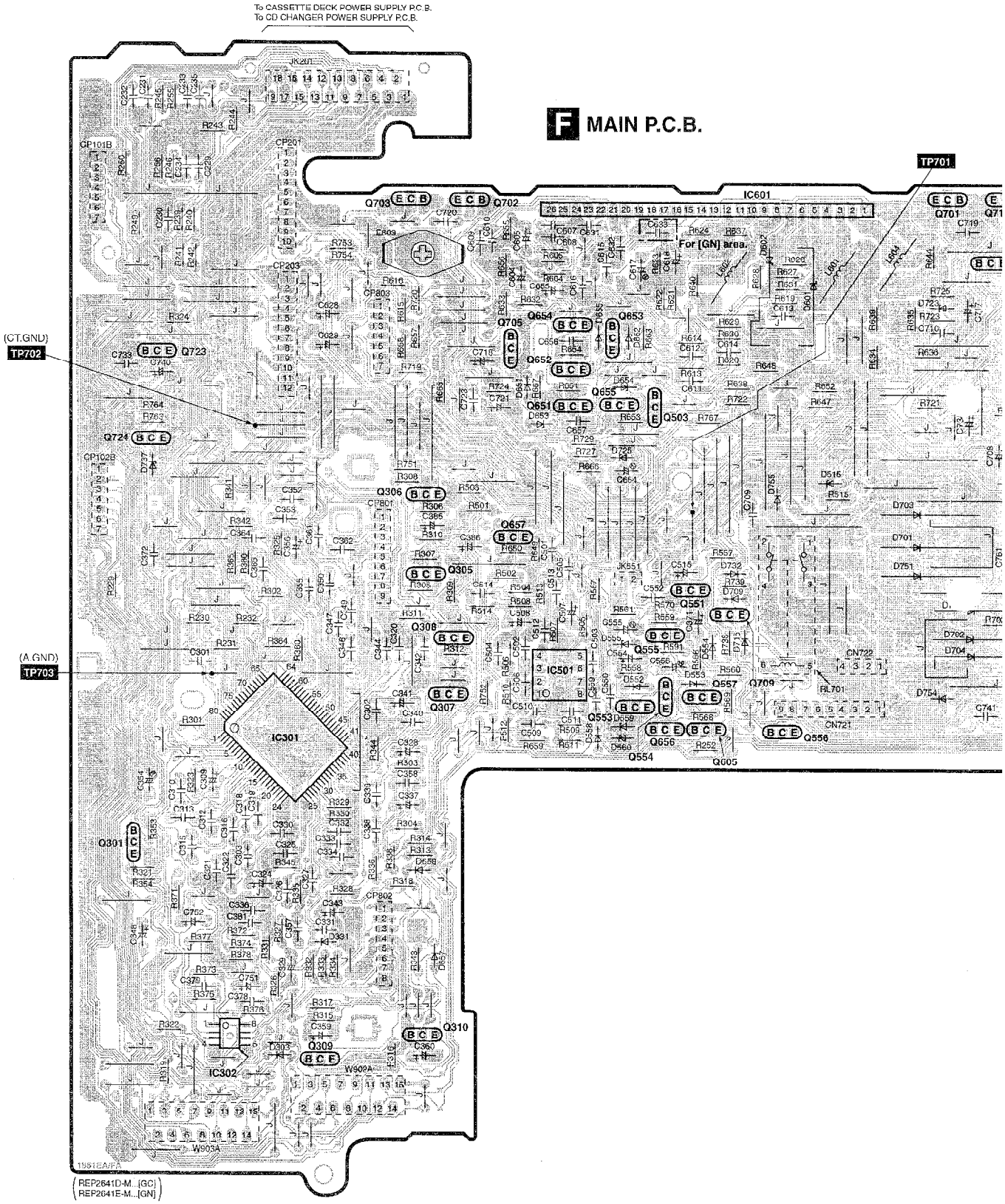
(REP2641D-M...[GC])
(REP2641E-M...[GN])

E IN / OUT TERMINAL P.C.B.

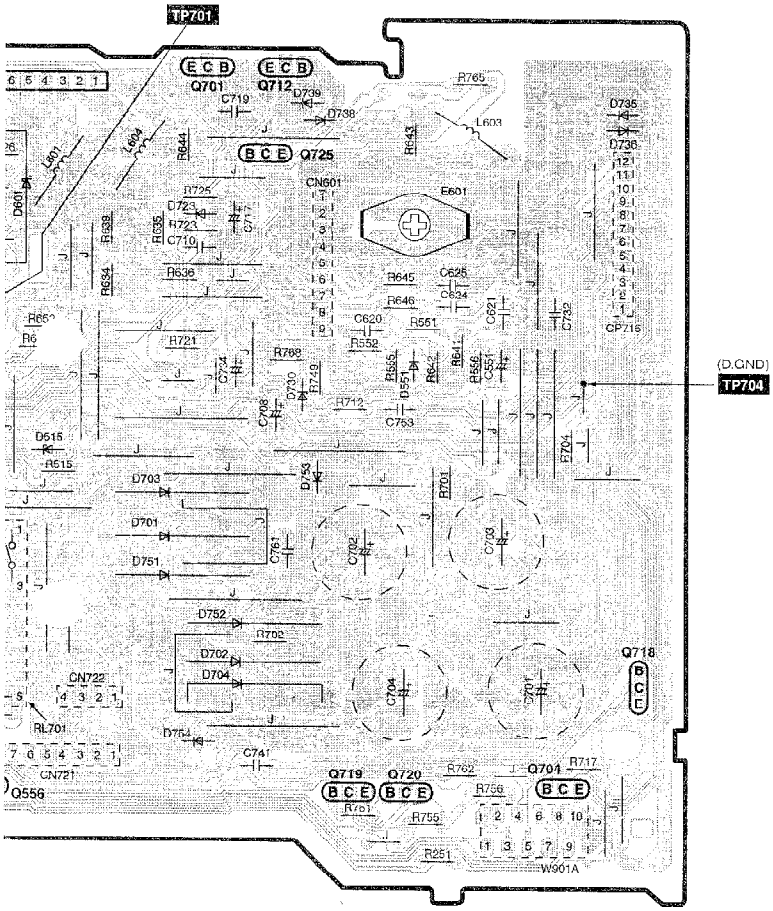


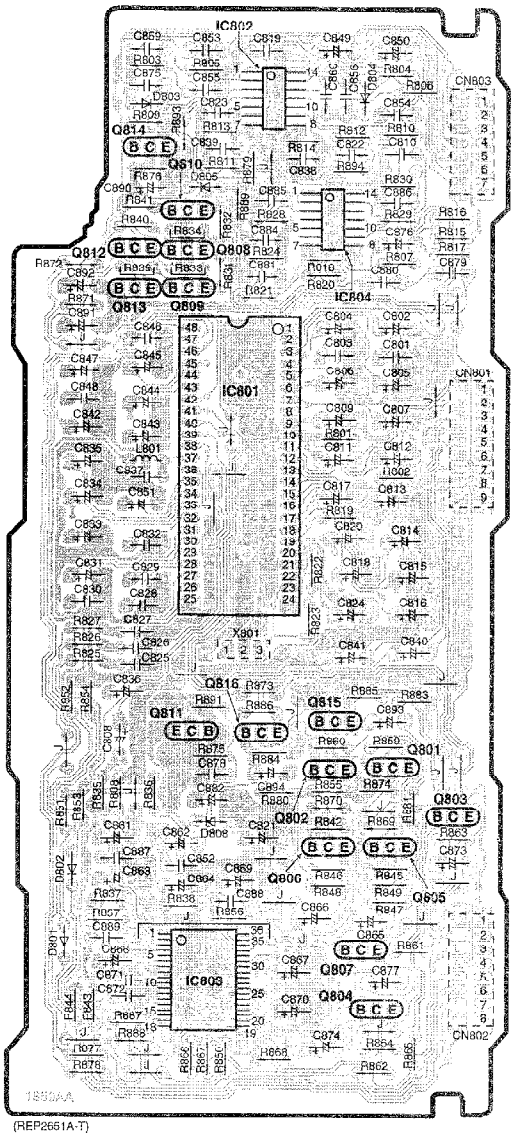
H SPEAKER TERMINAL P.C.B.




To CASSETTE DECK POWER SUPPLY P.C.B.
To CD CHANGER POWER SUPPLY P.C.B.
F MAIN P.C.B.
TP701
(CT.GND)
TP702
(A.GND)
TP703
IC601
IC501
IC301
IC302
For [GN] area.
REP2641D-M...[GC]
REP2641E-M...[GN]

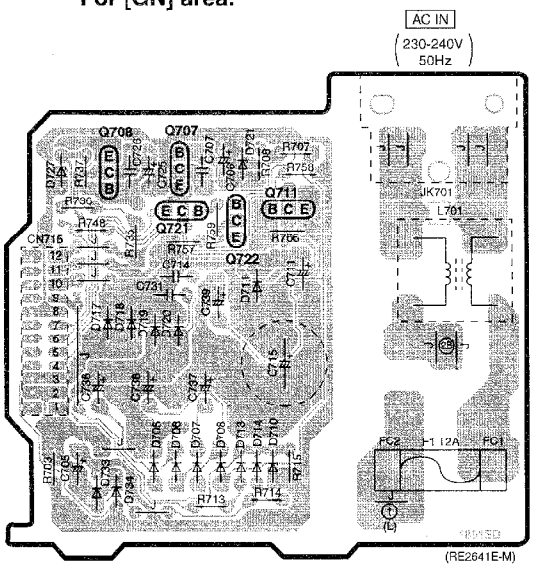
D DOLBY PROLOGIC P.C.B.





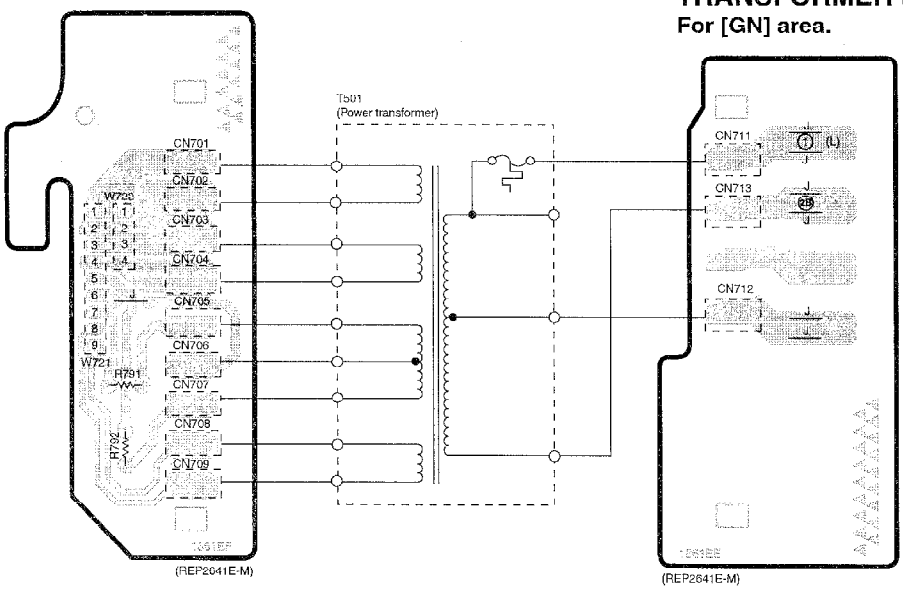
(REP2651A-T)

G POWER SUPPLY P.C.B.
For [GN] area.

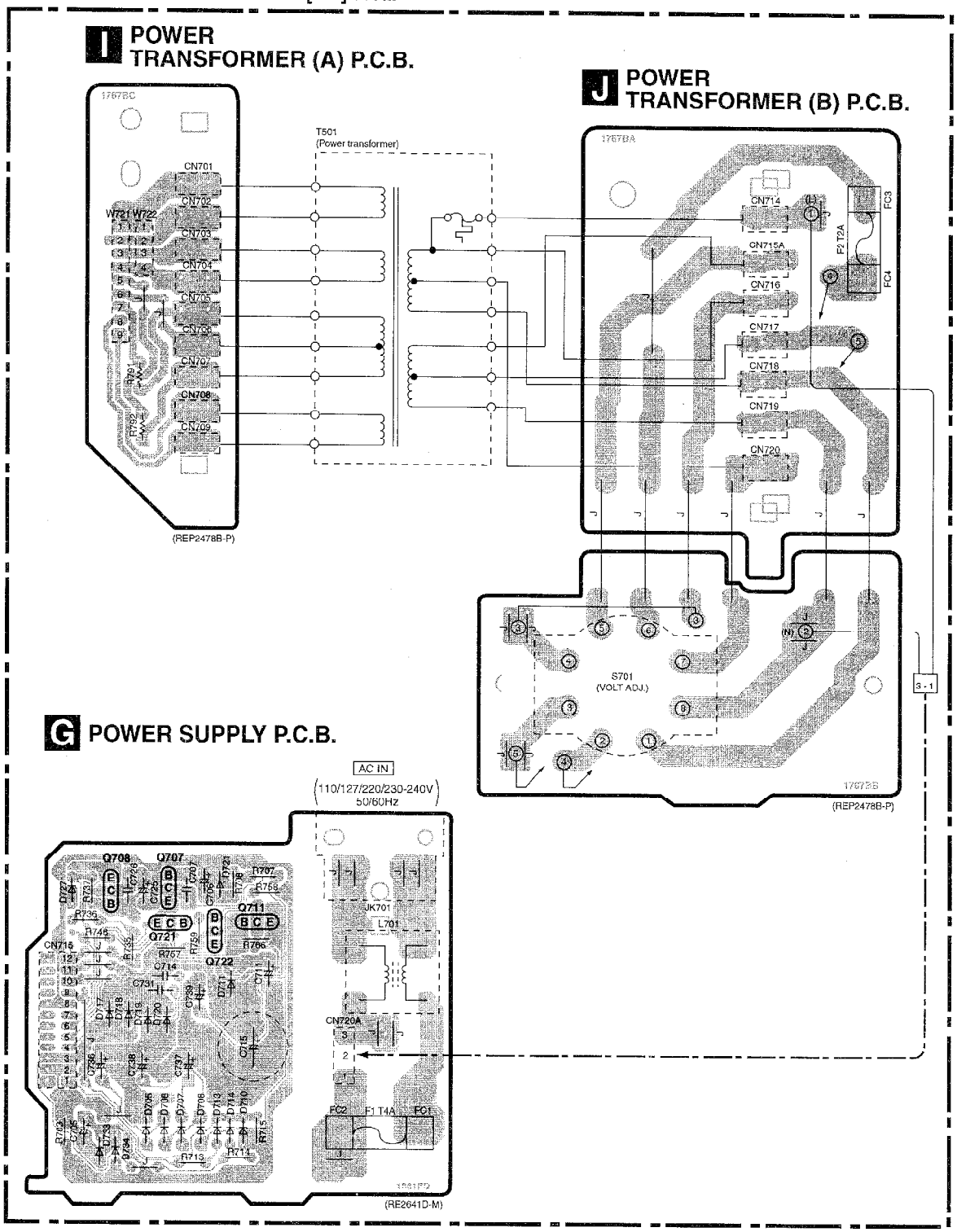


I POWER TRANSFORMER (A) P.C.B.
For [GN] area.

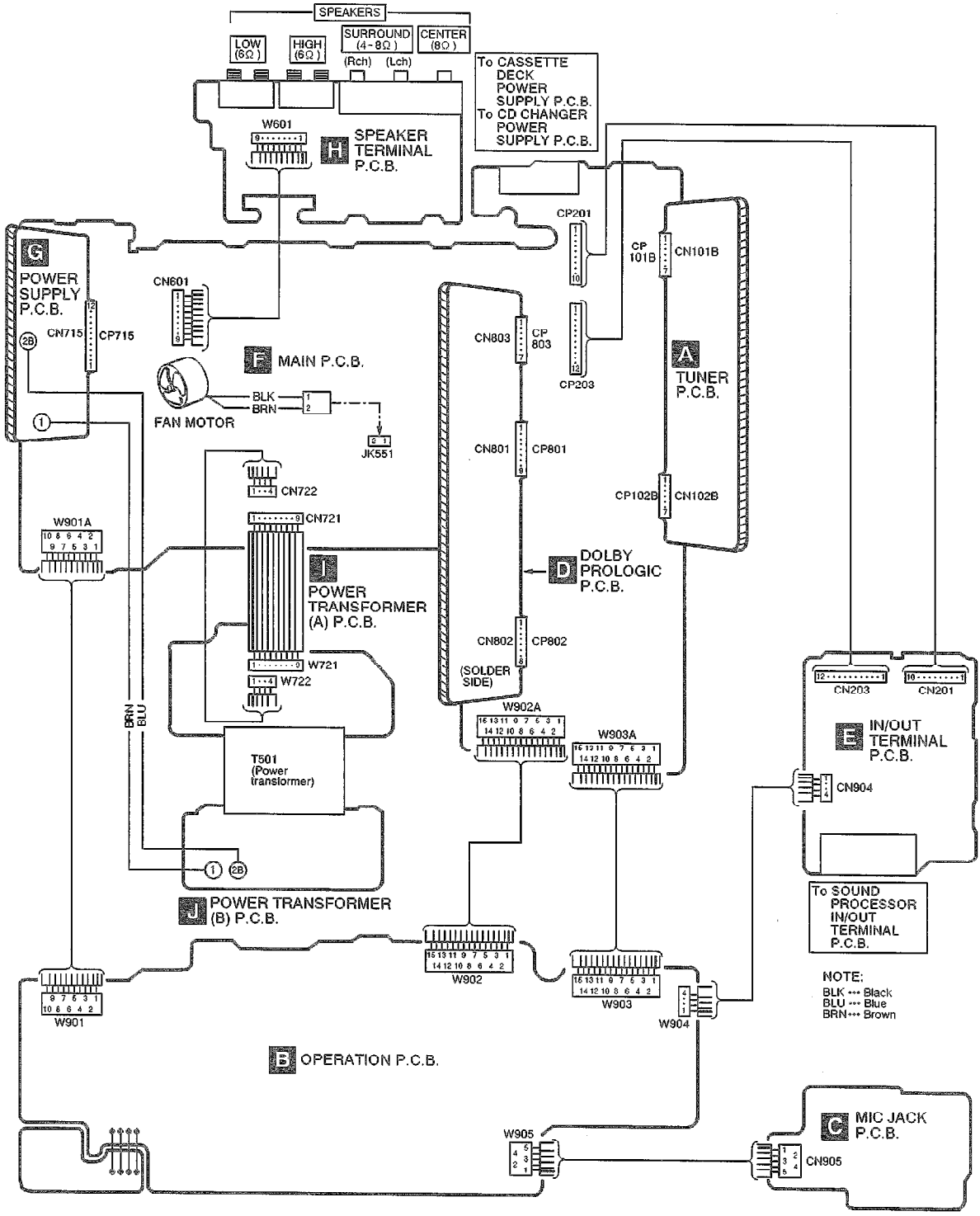
J POWER TRANSFORMER (B) P.C.B.
For [GN] area.



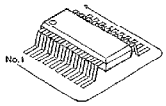
POWER SOURCE P.C.B. For [GC] area.



Wiring Connection Diagram

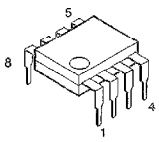


■ Type Illustration of IC's, Transistors and Diodes

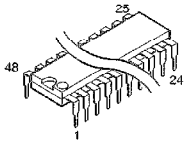


AN6558SFE2	8PIN
BU9255FS-E2	16PIN
LA1833M-TLM	24PIN
LC72131MDTLM	20PIN
M5218AFPE3	8PIN
M5228FPE1	14PIN
M62425FPE1	36PIN

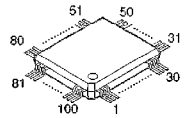
M5218AP



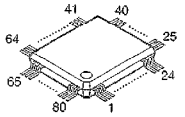
LV1030N



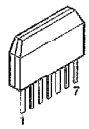
M38199MF107K



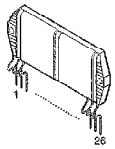
M62433AFP

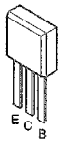


TA2011S



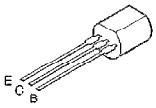
RSN307M44A



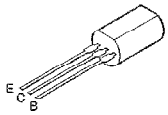


2SA1309AIRTA UN4111AITA
2SC2787LTA UN4112AITA
2SC3311AIQST UN4115TA
2SD1450STA UN4211AITA
UN411FTA UN4214AITA

2SB621AQRSTA



2SC3940AQSTA



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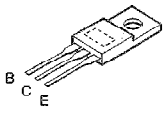
2SD2374PQAU



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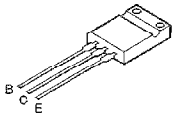
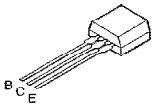
2SD2137PQTA



2SD2144STA



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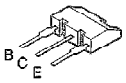
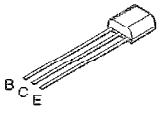
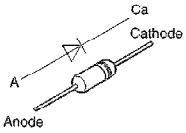
2SD1859QRTV2



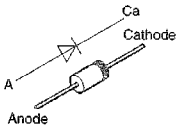
2SA1995RSTA
2SC5398RSTA

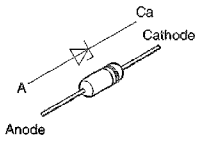


MA185TA



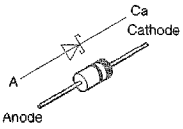
1N5402BF
RL1N4003N02

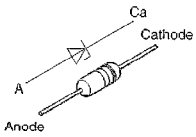




MA4100MTA
MA4120MTA
MA4140MTA
MA4150HTA
MA4180LTA
MA4300MTA

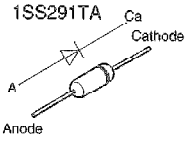
SB360L6508



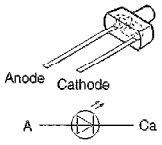


MA4020LTA
MA4039MTA
MA4051LTA
MA4051MTA
MA4062HTA
MA4082LTA
MA4030MTA

MA165TA
MA700TA
1SS291TA



LNJ301MPUJAD



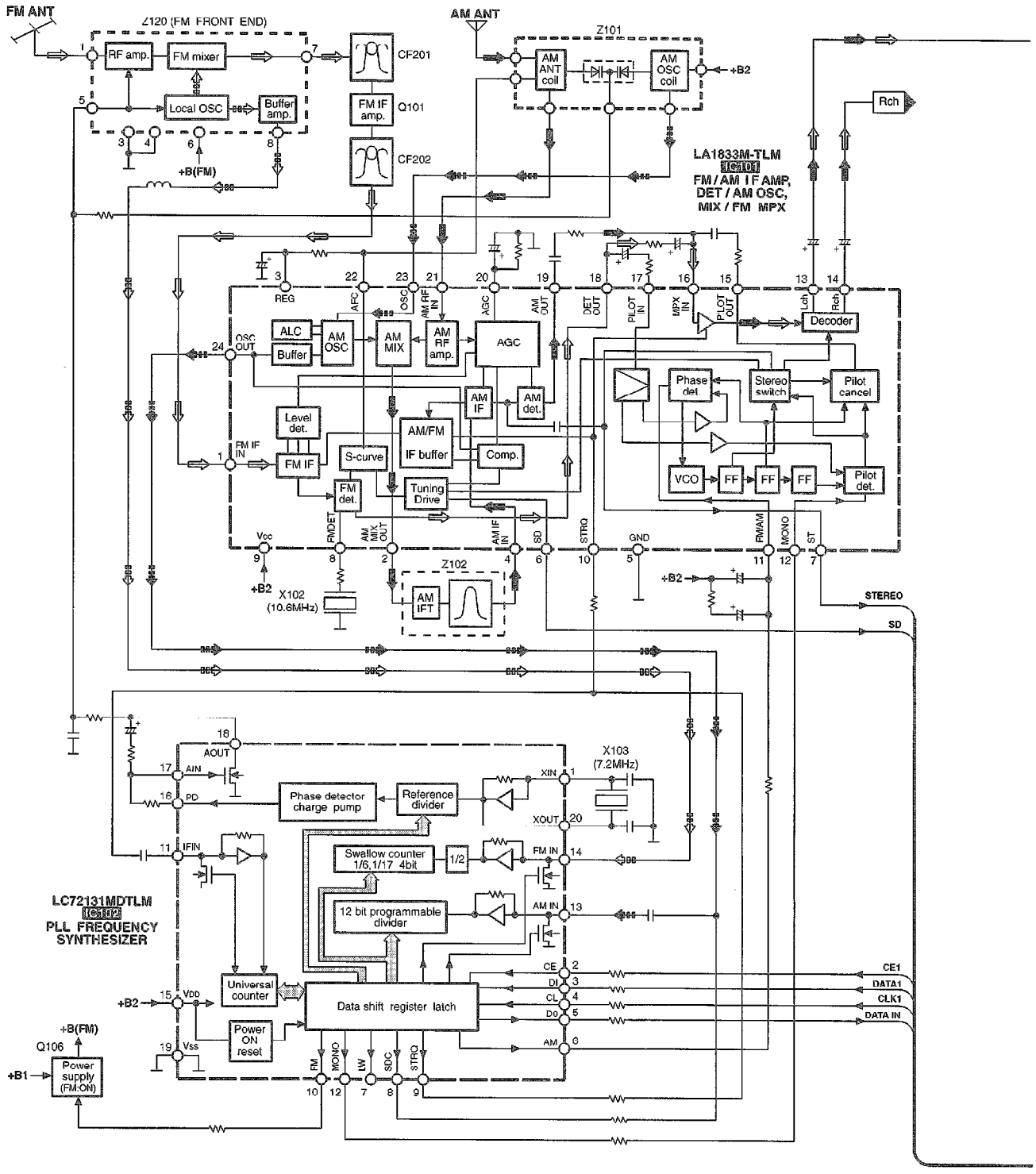
■ Terminal Function of IC's

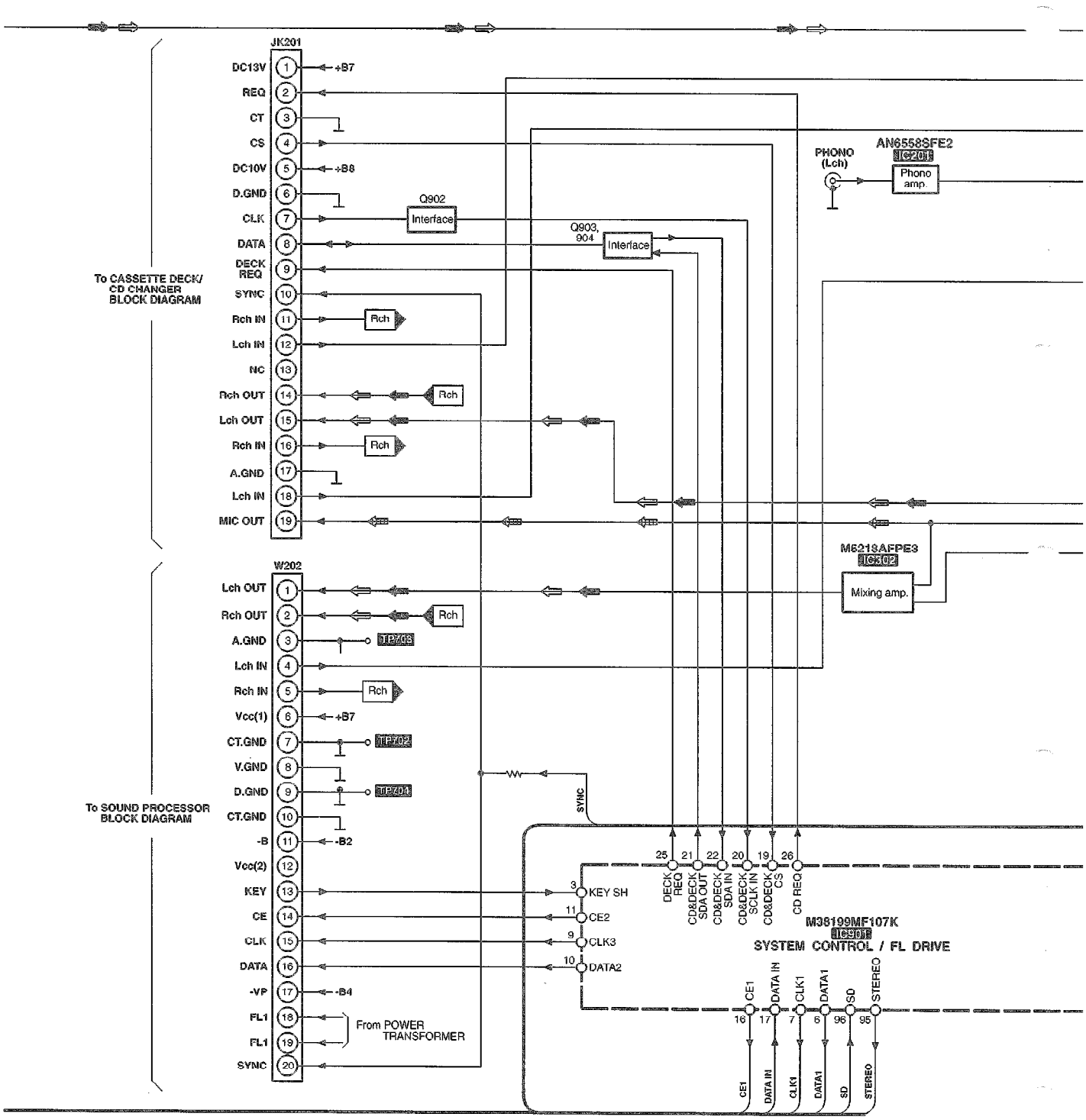
● IC901 (M38199MF107K): System Control / FL Drive

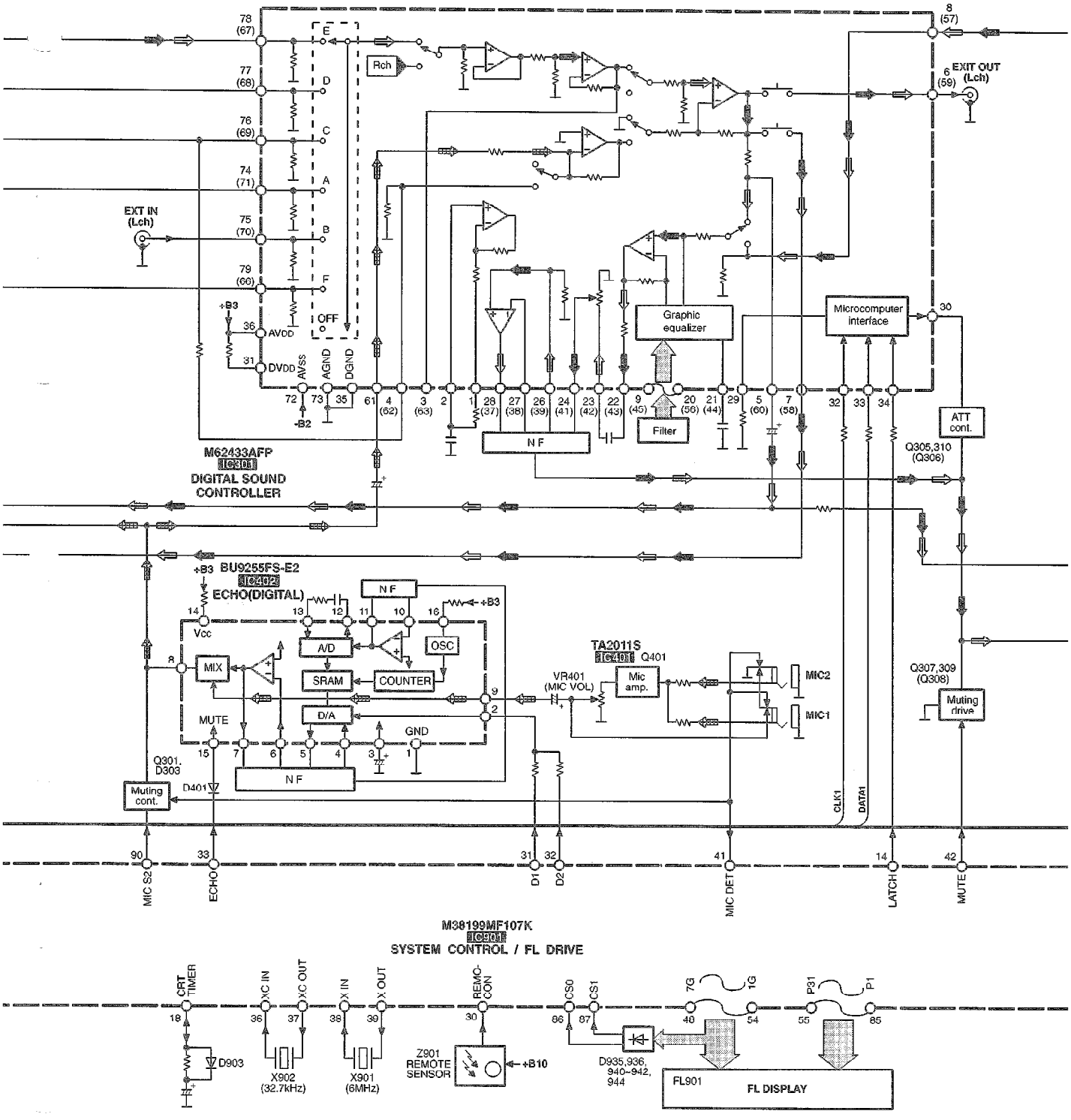
Pin No.	Terminal Name	I/O	Function
1	KEY TU	I	Operation switch signal input (TUNER, TIMER, AMP. section)
2	KEY KRAOKE	I	Operation switch signal input (KARAOKE section)
3	KEY SH	I	Sound processor operation switch signal input
4	KEY CD	I	CD changer operation switch signal input
5	KEY CD2	I	Connected to VREF
6	DATA1	O	Data signal output for M62433, M62425, LC72131 and LV1030
7	CLK1	O	Clock signal output for M62433, M62425, LC72131 and LV1030
8	CLK2	O	Clock signal output for M62425 (center and surround volume of dolby pro logic)
9	CLK3	O	Serial communication signal to sound processor (Clock signal output)
10	DATA2	O	Serial communication signal to sound processor (Data signal output)
11	CE2	O	Serial communication signal to sound processor (Chip enable signal output)
12	SEL/TUNER	O	Not used
13	SEL/TUNER	O	Tuner circuit power control signal output
14	LATCH	O	Latch signal output to M62433
15	REQ	O	Request signal output to LV1030
16	CE1	O	Chip enable signal output to LC72131
17	DATA IN	I	Data signal input from LC72131
18	CR TIMER	I/O	TIME CONSTANT terminal
19	CD & DECK CS	I	Serial data communication starting signal input (CD and DECK mechanism)
20	CD & DECK SCLK IN	I	Serial clock input (CD and DECK mechanism)
21	CD & DECK SDA OUT	O	Serial data output (CD and DECK mechanism)
22	CD & DECK SDA IN	I	Serial data input (CD and DECK mechanism)
23	HP SW	O	Headphones connecting detect signal input
24	SEL MD	O	Not used
25	DECK REQ	O	Cassette deck request signal output
26	CD REQ	O	CD changer request signal output
27	DPL & CHECK	O	Limiter control signal output
28	RDS DATA	I	Not used
29	RDS CLK	I	
30	REMOCON	I	Remote control signal input
31, 32	D1, D2	O	Echo control output
33	ECHO	O	

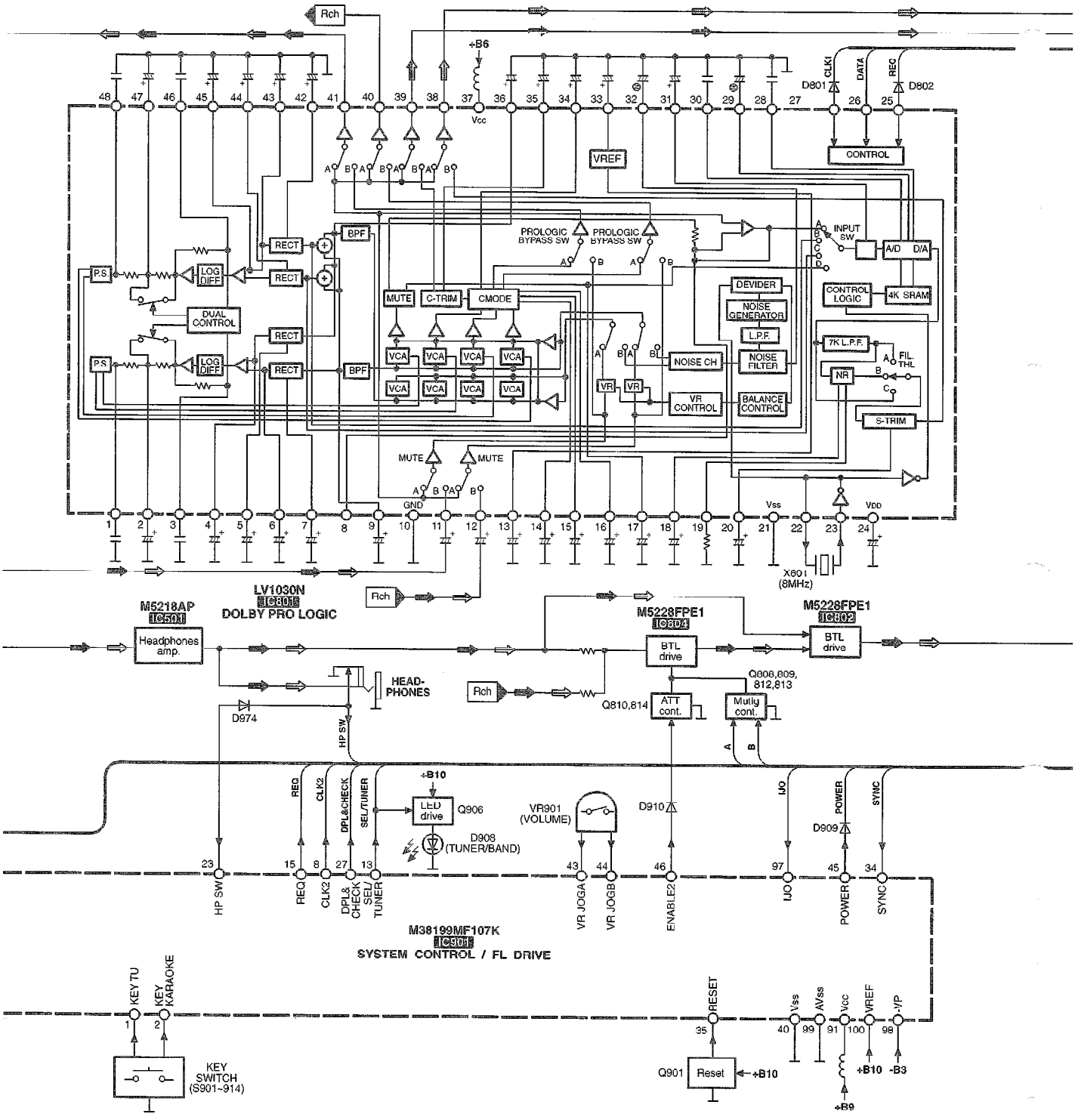
Pin No.	Terminal Name	I/O	Function
34	SYNC	I	AC power source input terminal
35	RESET	I	Reset signal input
36	XC IN	I	Oscillator connected terminal (f = 32.7 kHz)
37	XC OUT	O	
38	X IN	I	Oscillator connected terminal (f = 5 MHz)
39	X OUT	O	
40	Vss	—	GND terminal
41	MIC DET	I	Microphone connecting detect signal input
42	MUTE	O	Muting signal output
43	VR JOGB	I	Volume control signal input
44	VR JOGA	I	
45	POWER	O	Power control signal output
46	ENABLE2	O	Attenuator control signal output
47	NC	—	No used
48~54	7G~1G	O	Grid signal and chip select scan signal output
55~85	P31~P1	O	Segment signal output
86, 87	CS0, CS1	I	Chip select signal input
88	SEL TAPE	O	Connected to VCC
89	MIC S1	O	Microphone signal output
90	MIC S2	O	Microphone through signal output
91	VCC	—	Power supply
92	VIBRATE	–	Not used, open
93	CHORUS	–	Not used, open
94	WIDE	–	Not used, open
95	STEREO	I	STEREO signal input for tuner circuit
96	SD	I	Station detector signal input for tuner circuit
97	IJO	I	Unusual condition detect terminal ("L": unusual)
98	-VP	—	Reference voltage input (negative)
99	AVSS	—	Connect to GND
100	VREF	—	Reference voltage input (positive)

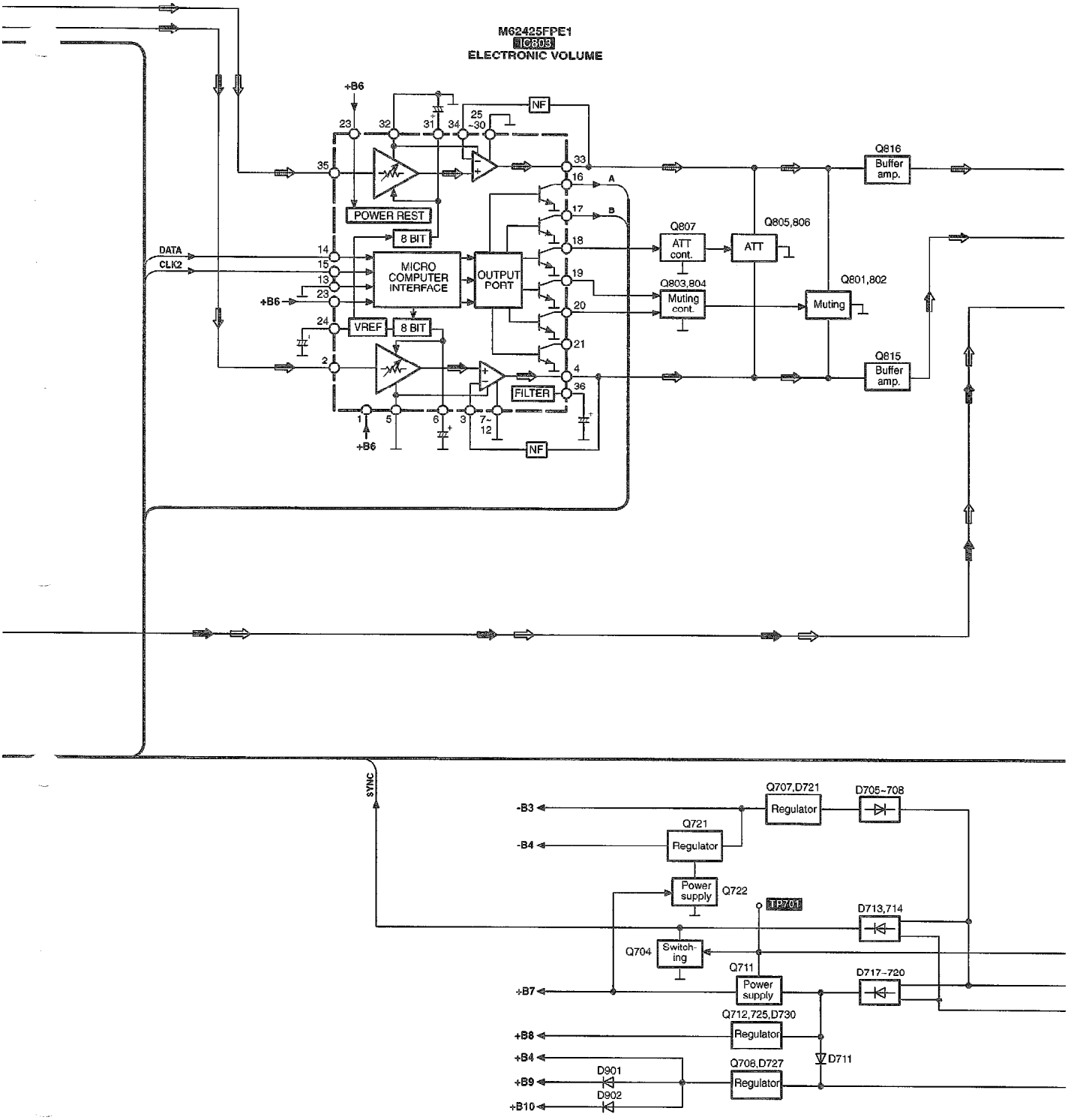
Block Diagram

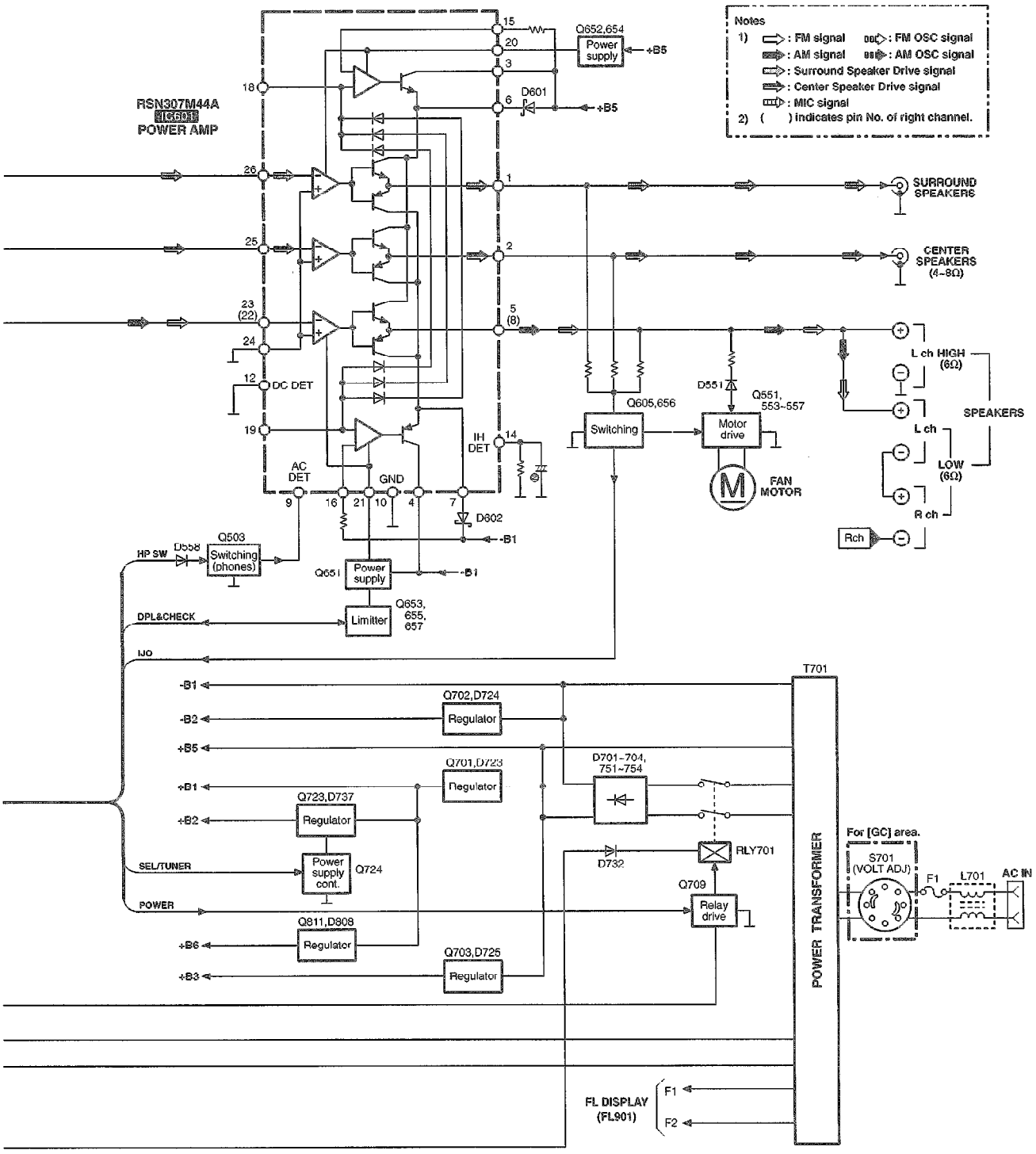



JK201
DC13V
REQ
CT
CS
DC10V
D.GND
CLK
DATA
DECK REQ
SYNC
Rch IN
Lch IN
NC
Rch OUT
Lch OUT
Rch IN
A.GND
Lch IN
MIC OUT
+B7
+B8
Q902
Interface
Q903, 904
Interface
Rch
To CASSETTE DECK/ CD CHANGER BLOCK DIAGRAM
W202
Lch OUT
Rch OUT
A.GND
Lch IN
Rch IN
Vcc(1)
CT.GND
V.GND
D.GND
CT.GND
-B
Vcc(2)
KEY
CE
CLK
DATA
-VP
FL1
FL1
SYNC
TP703
TP702
TP704
-B2
-B4
From POWER TRANSFORMER
To SOUND PROCESSOR BLOCK DIAGRAM
PHONO (Lch)
AN6558SFE2
IC201
Phono amp.
M6218AFPE3
IC302
Mixing amp.
M38199MF107K
IC901
SYSTEM CONTROL / FL DRIVE
KEY SH
CE2
CLK3
DATA2
DECK REQ
CD&DECK SDA OUT
CD&DECK SDA IN
CD&DECK SCLK IN
CD&DECK CS
CD REQ
CE1
DATA IN
CLK1
DATA1
SD
STEREO


M62433AFP
IC301
DIGITAL SOUND CONTROLLER
BU9255FS-E2
IC402
ECHO(DIGITAL)
TA2011S
IC401
Q401
Graphic equalizer
Microcomputer interface
Filter
N F
A/D
SRAM
COUNTER
OSC
MIX
D/A
MUTE
GND
VR401 (MIC VOL)
Mic amp.
MIC2
MIC1
ATT cont.
Q305,310 (Q306)
Q307,309 (Q308)
Muting drive
Muting cont.
Q301, D303
D401
EXT IN (Lch)
EXIT OUT (Lch)
Rch
OFF
AVDD
DVDD
AVSS
AGND
DGND
+B3
-B2
CLK1
DATA1
MIC S2
ECHO
D1
D2
MIC DET
LATCH
MUTE
M38199MF107K
IC901
SYSTEM CONTROL / FL DRIVE
CRT TIMER
XC IN
XC OUT
X IN
X OUT
REMO-CON
CS0
CS1
D903
X902 (32.7kHz)
X901 (6MHz)
Z901 REMOTE SENSOR
+B10
D935,936, 940~942, 944
FL901
FL DISPLAY


Rch
+B6
Vcc
VREF
CONTROL
D801
D802
CLK
DATA
REQ
PROLOGIC BYPASS SW
INPUT SW
A/D D/A
RECT
BPF
P.S
LOG DIFF
DUAL CONTROL
MUTE
C-TRIM
CMODE
VCA
DEVIDER
NOISE GENERATOR
L.P.F.
CONTROL LOGIC
4K SRAM
7K L.P.F.
FIL. THL
NR
NOISE CH
NOISE FILTER
VR
VR CONTROL
BALANCE CONTROL
S-TRIM
GND
Vss
VDD
X601 (8MHz)
LV1030N IC301 DOLBY PRO LOGIC
M5218AP IC501 Headphones amp.
M5228FPE1 IC802
M5228FPE1 IC804
BTL drive
HEAD-PHONES
D974
HP SW
Q808,809, 812,813
Q810,814
ATT cont.
Mutig cont.
+B10
LED drive
Q906
D908 (TUNER/BAND)
VR901 (VOLUME)
D910
D909
IJO
POWER
SYNC
REQ
CLK2
DPL&CHECK
SEL/TUNER
VR JOGA
VR JOGB
ENABLE2
M38199MF107K IC901 SYSTEM CONTROL / FL DRIVE
KEY TU
KEY KARAOKE
KEY SWITCH (S901~914)
RESET
Q901
Reset
+B10
-B3
+B9
AVss
VREF
VP


M62425FPE1
IC803
ELECTRONIC VOLUME
+B6
NF
POWER REST
8 BIT
DATA
CLK2
MICRO COMPUTER INTERFACE
OUTPUT PORT
VREF
FILTER
Q807
ATT cont.
Q805,806
ATT
Q803,804
Muting cont.
Q801,802
Muting
Q816
Buffer amp.
Q815
Buffer amp.
SYNC
-B3
-B4
+B7
+B8
+B4
+B9
+B10
Q707,D721
Regulator
D705~708
Q721
Regulator
Power supply
Q722
TP701
D713,714
Q704
Switch-ing
Q711
Power supply
D717~720
Q712,725,D730
Regulator
D711
Q708,D727
Regulator
D901
D902


Notes
1) : FM signal : FM OSC signal
: AM signal : AM OSC signal
: Surround Speaker Drive signal
: Center Speaker Drive signal
: MIC signal
2) ( ) indicates pin No. of right channel.
RSN307M44A
IC6003
POWER AMP
Q652,654
Power supply
+B5
D601
SURROUND SPEAKERS
CENTER SPEAKERS (4~8Ω)
L ch HIGH (6Ω)
SPEAKERS
L ch
LOW (6Ω)
R ch
Rch
DC DET
AC DET
GND
IH DET
D602
-B1
Q605,656
Switching
D551
Q551, 553~557
Motor drive
FAN MOTOR
HP SW
D558
Q503
Switching (phones)
Q651
Power supply
Q653, 655, 657
Limitter
DPL&CHECK
IJO
T701
-B1
-B2
+B5
+B1
+B2
SEL/TUNER
POWER
+B6
+B3
Q702,D724
Regulator
Q701,D723
Regulator
Q723,D737
Regulator
Power supply cont.
Q724
Q811,D808
Regulator
Q703,D725
Regulator
D701~704, 751~754
D732
RLY701
Q709
Relay drive
POWER TRANSFORMER
For [GC] area.
S701 (VOLT ADJ)
F1
L701
AC IN
FL DISPLAY (FL901)
F1
F2

Replacement Parts List

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
*All parts are supplied by MESA.

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0202F-H	CABINET	1	
2	RHD30007-K1	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	RGW0183-H	KNOB,VOLUME	1	
5	RKA0011-3	FOOT	4	
5	SHG1645	RUBBER	1	
6	RKQ0089-2	PCB HOLDER	6	
7	RMN0203	PCB HOLDER	1	
8	RMN0427	CABLE HOLDER	1	
9	RHD30070	SCREW	1	
10	REZ0971	WIRE ASS'Y	1	
11	RMN0426	FL PANEL	1	
12	RMN0429	PCB HOLDER	1	
13	RMN0437	PCB HOLDER	1	
14,15	REZ1088	FLAT CABLE	2	
16	REZ1076	WIRE ASS'Y(W601)	1	
17	REZ1088	FLAT CABLE	1	
18	REX0852	WIRE ASS'Y	1	
19	RGK0894-N	ORNAMENT	1	
21	RGW0235-1H	KNOB,MIC VOLUME	1	
22	RHD26016	SCREW	1	
23	RHN90001	NUT	1	
24	RKW0506B-Q	FL PANEL	1	
25	RMN0425	JACK HOLDER	1	
27	XTBS26+8J	SCREW	7	
28	XTB3+10JFZ	SCREW	10	
29	XTB3+20JFZ	SCREW	6	
30	XTB3+8JFZ	SCREW	6	
31	XTW3+15T	SCREW	4	
32	XTBS3+8JFZ1	SCREW	2	
33	RFKGAEH600GN	FRONT PANEL ASS'Y	1	
34	REM0057	FAN UNIT	1	
35	RWJ1809150KQ	FLAT CABLE(W721/9P)	1	
36	RWJ1804150KQ	FLAT CABLE(W722/4P)	1	
37	XTB3+8FFZ	SCREW	1	
38	REZ0987	WIRE ASS'Y	1	(GC)
39	RLBT4001-D	FERRITE CORE	1	
A1	RAK-CH219WH	REMOTE CONTROL TRANSMITTER	1	
A1-1	RKK0057-K	BATTERY COVER	1	
A2	REE0393	SPEAKER CORD	2	
A3	REE0853	SPEAKER CORD	2	
⚠ A4	RJA0019-X	AC POWER SUPPLY CORD	1	(GC)
⚠ A4	RJA0035-X	AC POWER SUPPLY CORD	1	(GN)
A5	RQCB0169	SERVICE CENTER LIST	1	
A6	RQT4302-B	OPERATION INSTRUCTIONS	1	(GN)<1A>
A6	RQT4309-G	OPERATION INSTRUCTIONS	1	(GC)<1B>
A6	RQT4533-M	OPERATION INSTRUCTIONS	1	(GC)<1C>
A7	RSA0006	FM INDOOR ANTENNA	1	
A8	RSA0022-J	AM LOOP ANTENNA	1	
A9	RQX7433ZA	GUARRANTY CARD	1	(GN)
⚠ A10	SJP5213-1	PLUG ADAPTOR	1	(GC)
C101	ECBT1C103NS5	16V 0.01U	1	
C102	RCE1CKA100BG	16V 10U	1	
C103	ECBT1C103NS5	16V 0.01U	1	
C104	ECBT1H102KB5	50V 1000P	1	
C106	ECBT1C103NS5	16V 0.01U	1	
C107	ECBT1H473ZF5	50V 0.047U	1	
C108	ECBT1H8R2KC5	50V 8.2P	1	
C109	ECBT1H102KB5	50V 1000P	1	
C110	ECBT1C103NS5	16V 0.01U	1	
C111	ECEA1EKA4R7B	25V 4.7U	1	
C112	ECBT1C103NS5	16V 0.01U	1	
C113	ECBT1H102KB5	50V 1000P	1	
C114	RCE1HKA3R3BG	50V 3.3U	1	
C115	ECEA1EKA4R7B	25V 4.7U	1	
C116	ECFR1C333KR	16V 0.033U	1	
C117,18	ECFR1C183KR	16V 0.018U	2	
C119	ECQB1H821JF3	50V 820P	1	
C120	RCE1CKA100BG	16V 10U	1	
C121	RCE1HKA4R7BG	50V 0.47U	1	
C122,23	ECEA1HKA010B	50V 1U	2	
C124	ECBT1H101KB5	50V 100P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C125	ECEA1CKA220B	16V 22U	1	
C126	ECBT1H473ZF5	50V 0.047U	1	
C127	ECEA1CKA220B	16V 22U	1	
C129,30	ECEA0JKA101B	6.3V 100U	2	
C131	ECBT1H101KB5	50V 100P	1	
C132	ECBT1H102KB5	50V 1000P	1	
C133,34	ECBT1H270JU5	50V 27P	2	
C136	ECBT1H102KB5	50V 1000P	1	
C137	ECFR1E472KR	25V 4700P	1	
C138	ECBT1C103KS5	16V 0.01U	1	
C139	ECEA1EKA4R7B	25V 4.7U	1	
C141,42	ECEA1HKA010B	50V 1U	2	
C143,44	ECBT1C222KR5	16V 2200P	2	
C147	ECBT1H102KB5	50V 1000P	1	
C148	ECBT1C103NS5	16V 0.01U	1	
C149	ECBT1H104ZF5	50V 0.1U	1	
C201,02	ECBT1H180J5	50V 18P	2	
C203,04	ECBT1H151KB5	50V 150P	2	
C205,06	ECBT1H102KB5	50V 1000P	2	
C207,08	RCE1AKA330BG	10V 33U	2	
C209,10	ECBT0J223NS5	16V 0.022U	2	
C211,12	ECBT1C682KR5	16V 6800P	2	
C213,14	RCE1CKA100BG	16V 10U	2	
C215	ECBT1E103ZF5	25V 0.01U	1	
C217	ECBT1E103ZF5	25V 0.01U	1	
C219-26	ECBT1H101KB5	50V 100P	8	
C229-35	ECBT1H101KB5	50V 100P	7	
C236,37	ECBT1H102KB5	50V 1000P	2	
C301	ECBT1H102KB5	50V 1000P	1	
C302,03	ECBT1H561KB5	50V 560P	2	
C309	ECEA1HKAR22B	50V 0.22U	1	
C310	ECFR1C823MR	16V 0.033U	1	
C312	ECFR1C823MR	16V 0.082U	1	
C313	ECFR1C103KR	16V 0.01U	1	
C315	ECFR1C223KR	16V 0.022U	1	
C316	ECBT1C332KR5	16V 3300P	1	
C318	ECBT1C682KR5	16V 6800P	1	
C319	ECBT1H102KB5	50V 1000P	1	
C320	ECBT1H681KB5	50V 680P	1	
C321	ECBT1C332KR5	16V 3300P	1	
C322	ECQV1H563JM3	50V 0.056U	1	
C324	RCE1CKA100BG	16V 10U	1	
C325	ECQV1H154JM3	50V 0.15U	1	
C326	ECBT1H102KB5	50V 1000P	1	
C327	ECBT1H471KB5	50V 470P	1	
C328	RCE1CKA470DG	16V 47U	1	
C329	ECEA1CKA220B	16V 22U	1	
C330	ECBT1H681KB5	50V 680P	1	
C331	ECBT1H104ZF5	50V 0.1U	1	
C332-34	ECBT1H470J5	50V 47P	3	
C336	ECBT1H104ZF5	50V 0.1U	1	
C337	RCE1CKA470BG	16V 47U	1	
C338	ECBT1H471KB5	50V 470P	1	
C339	ECBT1H102KB5	50V 1000P	1	
C340	ECQV1H154JM3	50V 0.15U	1	
C341	RCE1CKA100BG	16V 10U	1	
C342	ECQV1H563JM3	50V 0.056U	1	
C343	ECEA1CKA220B	16V 22U	1	
C344	ECBT1C332KR5	16V 3300P	1	
C346	ECBT1H102KB5	50V 1000P	1	
C347	ECBT1C682KR5	16V 6800P	1	
C348	RCE1CKA100BG	16V 10U	1	
C349	ECBT1C332KR5	16V 3300P	1	
C350	ECFR1C223KR	16V 0.022U	1	
C352	ECFR1C103KR	16V 0.01U	1	
C353	ECFR1C823MR	16V 0.082U	1	
C354	ECEA1CN100SB	16V 10U	1	
C355	ECFR1C823MR	16V 0.082U	1	
C356	ECEA1HKAR22B	50V 0.22U	1	
C357,58	ECQV1H683JM3	50V 0.068U	2	
C359	RCE1HKA3R3BG	50V 3.3U	1	
C360	RCE1HKA4R7BG	50V 4.7U	1	
C361,62	ECBT1C222KR5	16V 2200P	2	
C364	ECBT1C152KR5	16V 1500P	1	
C365	ECQV1H154JM3	50V 0.15U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C371	ECEA0JKA101B	6.3V 100U	1	
C372	ECBT1H104ZF5	50V 0.1U	1	
C378,79	ECBT1H120J5	50V 12P	2	
C381	ECBT1E103ZF5	25V 0.01U	1	
C385,86	RCE1CKA100BG	16V 10U	2	
C395,96	ECBT1H473ZF5	50V 0.047U	2	
C401	ECBT1H102KB5	50V 1000P	1	
C403	ECBT1H102KB5	50V 1000P	1	
C404	RCE1HKA3R3BG	50V 3.3U	1	
C405	ECBT1H471KB5	50V 470P	1	
C406	ECEA1EKS4R7B	25V 4.7U	1	
C407	ECBT1E103ZF5	25V 0.01U	1	
C408	ECBT1C103MS5	16V 0.01U	1	
C409	ECEA1HKA010B	50V 1U	1	
C410	ECEA1CKS100B	16V 10U	1	
C411	ECBT1H101KB5	50V 100P	1	
C412	ECBT1H102KB5	50V 1000P	1	
C413	ECEA1HKA010B	50V 1U	1	
C414	ECA0JM471B	6.3V 470U	1	
C415	ECEA1HKA010B	50V 1U	1	
C416	RCE1CKA100BG	16V 10U	1	
C417	ECBT1C472KR5	16V 4700P	1	
C418	ECBT1H221KB5	50V 220P	1	
C419	RCE1CKA100BG	16V 10U	1	
C420	ECBT1H104ZF5	50V 0.1U	1	
C421	RCE1AKA101BG	10V 100U	1	
C422	ECBT1C103KS5	16V 0.01U	1	
C424	ECBT1C103KS5	16V 0.01U	1	
C425	ECBT1C332MR5	16V 3300P	1	
C426	ECEA1HKA010B	50V 1U	1	
C427	ECBT0J223MS5	16V 0.022U	1	
C428	ECEA1HKA010B	50V 1U	1	
C429	ECBT1C472MR5	16V 4700P	1	
C430	ECBT1C103KS5	16V 0.01U	1	
C431	ECEA1HKNR47B	50V 0347U	1	
C432	ECBT0J223MS5	16V 0.022U	1	
C433	RCE1CKA470BG	16V 47U	1	
C434	RCE1CKA100BG	16V 10U	1	
C441	ECBT1E103ZF5	25V 0.01U	1	
C501-06	ECBT1H101KB5	50V 100P	6	
C507,08	RCE1CKA100BG	16V 10U	2	
C509-12	ECBT1E103ZF5	25V 0.01U	4	
C513,14	ECBT1C562KR5	16V 5600P	2	
C515	ECEA1CKA330B	16V 33U	1	
C550	ECBT1E103ZF5	25V 0.01U	1	
C551	ECEA1HKA2R2B	50V 2.2U	1	
C552	ECBT1E103ZF5	25V 0.01U	1	
C554	ECA1AM221B	10V 220U	1	
C555,56	ECEA1CKN100B	16V 10U	2	
C559	ECBT1E103ZF5	25V 0.01U	1	
C604,05	RCE1CKA100BG	16V 10U	2	
C607-10	ECBT1H471KB5	50V 470P	4	
C611-14	ECBT1H150JC5	50V 15P	4	
C615,16	ECKR2H103ZU	500V 0.01U	2	
C617	ECEA1HN2R2SB	50V 2.2U	1	
C618	ECA1HM101B	50V 100U	1	
C620,21	ECQV1H473JM3	50V 0.047U	2	
C624,25	ECQV1H473JM3	50V 0.047U	2	
C628,29	RCE1CKA100BG	16V 10U	2	
C631,32	ECBT1H102KB5	50V 1000P	2	
C633	ECBT1C103KS5	16V 0.01U	1	(GN)
C654	ECEA1EKN3R3B	25V 3.3U	1	
C655	ECA2AM010B	100V 1U	1	
C656	ECBT1E103ZF5	25V 0.01U	1	
C657	ECBT1H104ZF5	50V 0.1U	1	
⚠ C701-04	ECA1VM472E	35V 4700U	4	
C705	RCE1CKA100BG	16V 10U	1	
C706	RCE1VKA100BG	35V 10U	1	
C707	ECBT1E103ZF5	25V 0.01U	1	
C708	RCE1CKA100BG	16V 10U	1	
C709	ECBT1H104ZF5	50V 0.1U	1	
C710	ECBT1E103ZF5	25V 0.01U	1	
C711	RCE1EM471BV	25V 470U	1	
C714	ECBT1H102KB5	50V 1000P	1	
⚠ C715	ECA1EM472E	25V 4700U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C717	ECEA1CKA330B	16V 33U	1	
C718	RCE1AKA101BG	10V 100U	1	
C719,20	ECBT1E103ZF5	25V 0.01U	2	
C721	RCE1AKA101BG	10V 100U	1	
C723	ECBT1E103ZF5	25V 0.01U	1	
C725	RCE1CKA100BG	16V 10U	1	
C726	ECBT1E103ZF5	25V 0.01U	1	
C731	ECBT1H102KB5	50V 1000P	1	
C732	ECBT1E223ZF5	25V 0.022	1	
C733	ECBT1E103ZF5	25V 0.01U	1	
C734	RCE1CKA100BG	16V 10U	1	
⚠ C736	ECA1EM101B	25V 100U	1	
⚠ C737,38	ECA1HM101B	50V 100U	2	
⚠ C739	ECA1JM101B	63V 100U	1	
C740	RCE1CKA100BG	16V 10U	1	
C741	ECBT1H104ZF5	50V 0.1U	1	
C751,52	ECA1AM471B	10V 470U	2	
C753	ECBT1H101KB5	50V 100P	1	
C761	ECQE1104KF3	100V 0.1U	1	
C801	ECQV1H154JM3	50V 0.15U	1	
C802	RCE1HKA3R3BG	50V 3.3U	1	
C803	ECQV1H154JM3	50V 0.15U	1	
C804	RCE1HKA4R7BG	50V 4.7U	1	
C805	RCE1HKAR47BG	50V 0.47U	1	
C806	RCE1HKA4R7BG	50V 4.7U	1	
C807	RCE1HKAR47BG	50V 0.47U	1	
C808	RCE1CKA100BG	16V 10U	1	
C809	ECEA1HKA010B	50V 1U	1	
C810	ECBT1E103ZF5	25V 0.01U	1	
C811,12	ECEA1CKA330B	16V 33U	2	
C813	ECA1CM221B	16V 220UF	1	
C814-17	RCE1CKA100BG	16V 10U	4	
C818	ECEA1HKA2R2B	50V 2.2U	1	
C819	ECBT1E103ZF5	25V 0.01U	1	
C820	ECEA1HKAR33B	50V 0.33U	1	
C821	ECA1CM221B	16V 220UF	1	
C822,23	ECBT1H101KB5	50V 100P	2	
C824	ECA1CM221D	16V 220UF	1	
C825-27	ECBT1H101KB5	50V 100P	3	
C828	ECFR1C823MR	16V 0.082U	1	
C829	ECFR1E332KR	25V 3300P	1	
C830	ECFR1C823MR	16V 0.082U	1	
C831	RCE1HKAR47BG	50V 0.47U	1	
C832	ECQV1H473JM3	50V 0.047U	1	
C833	ECA1CM221B	16V 220UF	1	
C834,35	RCE1HKAR47BG	50V 0.47U	2	
C836	ECEA1HKA010B	50V 1U	1	
C837	ECBT1H104ZF5	50V 0.1U	1	
C838,39	ECBT1H101KB5	50V 100P	2	
C840,41	RCE1CKA100BG	16V 10U	2	
C842	RCE1HKAR47BG	50V 0.47U	1	
C843	RCE1HKA4R7BG	50V 4.7U	1	
C844	RCE1HKAR47BG	50V 0.47U	1	
C845	RCE1HKA4R7BG	50V 4.7U	1	
C846	ECQV1H154JM3	50V 0.15U	1	
C847	RCE1HKA3R3BG	50V 3.3U	1	
C848	ECQV1H154JM3	50V 0.15U	1	
C849,50	RCE1CKA100BG	16V 10U	2	
C851	RCE1CKA470BG	16V 47U	1	
C852	ECBT1H681KB5	50V 680P	1	
C853	ECQV1H473JM3	50V 0.047U	1	
C854	ECQV1H683JM3	50V 0.068U	1	
C855	ECQV1H473JM3	50V 0.047U	1	
C856	ECQV1H683JM3	50V 0.068U	1	
C859,60	ECBT1H101KB5	50V 100P	2	
C861,62	RCE1CKA100BG	16V 10U	2	
C863,64	ECEA1CKA220B	16V 22U	2	
C865,66	RCE1HKA3R3BG	50V 3.3U	2	
C867-69	ECEA1CKA330B	16V 33U	3	
C870	RCE1CKA100BG	16V 10U	1	
C871,72	ECBT1H470J5	50V 47P	2	
C873,74	ECEA0JKA470B	6.3V 47U	2	
C875	ECQV1H823JM3	50V 0.082U	1	
C876	ECEA1CKA330B	16V 33U	1	
C877	ECEA0JKA101B	6.3V 100U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C878	ECBT1E103ZF5	25V 0.01U	1	
C879	ECFR1C683KR	16V 0.033U	1	
C880	ECFR1C333KR	16V 0.033U	1	
C881	ECQV1H154JM3	50V 0.15U	1	
C882	ECEA1CKA101B	16V 100U	1	
C884	ECQV1H104JM3	50V 0.1U	1	
C885	ECBT1C472KR5	16V 4700P	1	
C886	ECBT1H101KB5	50V 100P	1	
C887	ECBT1H102KB5	50V 1000P	1	
C888, 89	ECBT1H221KB5	50V 220P	2	
C890	RCE1AKA330BG	10V 33U	1	
C891, 92	RCE1AKA470BG	10V 47U	2	
C893, 94	RCE1CKA100BG	16V 10U	2	
C901	ECBT1H104ZF5	50V 0.1U	1	
C902	ECA0JM102	6.3V 1000U	1	
C903, 04	ECBT1E103ZF5	25V 0.01U	2	
C905-08	ECBT1H471KB5	50V 470P	4	
C909	ECBT1H102KB5	50V 1000P	1	
C910	ECBT1H150JC5	50V 15P	1	
C911	ECBT1H180JC5	50V 18P	1	
C912	ECBT1H104ZF5	50V 0.1U	1	
C913	RCE1CKA100BG	16V 10U	1	
C914	ECEA1HKA2R2B	50V 2.2U	1	
C915	ECBT1E103ZF5	25V 0.01U	1	
C916	ECA0JKF101B	6.3V 100U	1	
C917	ECBT1E103ZF5	25V 0.01U	1	
C918	ECEA0JKA221B	6.3V 220U	1	
C919, 20	ECEA1HKS2R2B	50V 2.2U	2	
C921	ECBT1H102KB5	50V 1000P	1	
C922	ECEA1VKA330B	35V 33U	1	
C1101, 02	ECBT1H473ZF5	50V 0.047U	2	
C1103-06	ECBT1H102KB5	50V 1000P	4	
C1107, 08	ECBT1H473ZF5	50V 0.047U	2	
C1109-12	ECBT1H102KB5	50V 1000P	4	
C1113, 14	ECBT1H473ZF5	50V 0.047U	2	
CF201, 02	RLFFETWNQ1DD	CERAMIC FILTER	2	
CN101B, 2B	RJU100W07	CONNECTOR(7P)	2	
CN201	RJU057W010	CONNECTOR(10P)	1	
CN203	RJU057W012	CONNECTOR(12P)	1	
CN601	SJT30943-V	CONNECTOR(9P)	1	
CN701-09	RJS1A1101T1	CONNECTOR(1P)	9	
CN711-14	RJS1A1101T1	CONNECTOR(1P)	4	(GC)
CN715	RJU057W012	CONNECTOR(1P)	1	
CN715A-20	RJS1A1101T1	CONNECTOR(1P)	6	(GC)
CN720A	RJP1A4103	CONNECTOR(3P)	1	(GC)
CN721	SJT30943-V	CONNECTOR(9P)	1	
CN722	SJT30443-V	CONNECTOR(4P)	1	
CN801	RJU057W009	CONNECTOR(9P)	1	
CN802	RJU057W008	CONNECTOR(8P)	1	
CN803	RJU057W007	CONNECTOR(7P)	1	
CN904	RJS4T7ZA	CONNECTOR(4P)	1	
CN905	RJS2A2105	CONNECTOR(5P)	1	
CP101B, 2B	RJT100W07	CONNECTOR(7P)	2	
CP201	RJT057W010-1	CONNECTOR(10P)	1	
CP203	RJT057W012-1	CONNECTOR(12P)	1	
CP715	RJT057W012-1	CONNECTOR(12P)	1	
CP801	RJT057W009-1	CONNECTOR(9P)	1	
CP802	RJT057W008-1	CONNECTOR(8P)	1	
CP803	RJT057W007-1	CONNECTOR(7P)	1	
D101	MA4051M	DIODE	1	
D303	MA165	DIODE	1	
D331	MA4051L	DIODE	1	
D401	MA165	DIODE	1	
D402	MA4051M	DIODE	1	
⚠ D515	MA4140M	DIODE	1	
D551, 52	MA165	DIODE	2	
D553	MA700TA	DIODE	1	
D554	MA165	DIODE	1	
D555	MA4100M	DIODE	1	
D558	MA165	DIODE	1	
D559, 60	MA4020L	DIODE	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D601, 02	SB360L6508	DIODE	2	
⚠ D651	MA4180L	DIODE	1	
⚠ D652, 53	MA4140M	DIODE	2	
D654	MA4030M	DIODE	1	
D655	MA185TA	DIODE	1	
D657, 58	MA165	DIODE	2	
⚠ D701-04	1N5402BF	DIODE	4	
⚠ D705-08	RL1N4003N02	DIODE	4	
D709	MA165	DIODE	1	
D710	MA4051M	DIODE	1	
D711	RL1N4003N02	DIODE	1	
⚠ D713, 14	MA185TA	DIODE	2	
D715	MA165	DIODE	1	
⚠ D717-20	RL1N4003N02	DIODE	4	
⚠ D721	MA4300M	DIODE	1	
⚠ D723	MA4150M	DIODE	1	
⚠ D725	MA4082L	DIODE	1	
⚠ D727	MA4062-H	DIODE	1	
⚠ D730	MA4100M	DIODE	1	
D732-36	MA165	DIODE	5	
⚠ D737	MA4082L	DIODE	1	
D738, 39	MA165	DIODE	2	
⚠ D751, 52	1N5402BF	DIODE	2	
⚠ D753-55	RL1N4003N02	DIODE	3	
D801-05	MA165	DIODE	5	
⚠ D808	MA4120	DIODE	1	
D901, 02	1SS291TA	DIODE	2	
D903, 04	MA165	DIODE	2	
D905	1SS291TA	DIODE	1	
D906, 07	MA165	DIODE	2	
D908	LNJ301MPUJAD	LED	1	
D909, 10	MA165	DIODE	2	
D935, 36	MA165	DIODE	2	
D940, 41	MA165	DIODE	2	
D944	MA165	DIODE	1	
D971, 72	MA165	DIODE	2	
⚠ D973	MA4039M	DIODE	1	
D974	MA165	DIODE	1	
EG01	SNE1004-2	EARTH TERMINAL	1	
E603	SNE1004-2	EARTH TERMINAL	1	
⚠ F1	XBA2C20TB0	FUSE	1	(GN)
⚠ F1	XBA2C40TB0	FUSE	1	(GC)
⚠ F2	XBA2C20TB0	FUSE	1	(GC)
FL901	RSL0251-F	DISPLAY TUBE	1	
IC101	LA1833M-TLM	IC	1	
IC102	LC72131MDTLM	IC	1	
IC201	AN6558SFE2	IC	1	
IC301	M62433AFP	IC	1	
IC302	M5218AFPE3	IC	1	
IC401	TA2011S	IC	1	
IC402	BU9255FS-E2	IC	1	
IC501	M5218AP	IC	1	
⚠ IC601	RSN307M44A-P	IC	1	
IC801	LV1030N	IC	1	
IC802	M5228FPE1	IC	1	
IC803	M62425FPE1	IC	1	
IC804	M5228FPE1	IC	1	
IC901	M38199MF107K	IC	1	
JK101	RJH5404M	ANTENNA TERMINAL	1	
JK201	RJT065K19	SYSTEM CONNECTOR(19P)	1	
JK203	SJF3068-7N	EXT IN	1	
JK204	SJF3069-5N	EXT OUT, PHONO	1	
JK501	RJR0054B	SPEAKERS	1	
JK502	RJH3301-J	SURROUND/CENTER SPEAKER	1	
JK503	RJR0054C	SPEAKERS	1	
JK551	SJT3213	FAN MOTOR CONNECTOR(2P)	1	
⚠ JK701	SJS9236	AC INLET	1	
JK901, 02	RJJ65MA01	MIC	2	
JK903	RJJ37TN01-C	HEADPHONES	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L101,02	ELESNR68MA	COIL	2	
L103	ELEXTR47MA9	COIL	1	
L501-04	RLQYR73MW1-0	COIL	4	
L701	RLQZ271M-K	COIL	1	
L801	ELEXT1R0KA9	COIL	1	
L901	RLQA100JT-Y	COIL	1	
P1	RPF0139	PROTECTION COVER	1	
P2	RPG3514	PACKING CASE(SH-EH600)	1	
P2	RPG3515	PACKING CASE(RS-EH600)	1	
P2	RPG3516	PACKING CASE(SL-EH600)	1	
P2	RPG3517	PACKING CASE(SA-EH600)	1	
P3	RPG3865	PACKING CASE(SYSTEM)	1	(GC)
P3	RPG3866	PACKING CASE(SYSTEM)	1	(GN)
P4	RPN1117	PAD(SA-EH600)	1	
P4	RPN1037	PAD(RS-EH600)	1	
P4	RPN1038	PAD(SH-EH600)	1	
P4	RPN1039-1	PAD(SL-EH600)	1	
P5	RPQ0769	SPACER	1	
P6	SPP740	SHEET	1	
Q101	2SC2787L	TRANSISTOR	1	
Q106	UN4111	TRANSISTOR	1	
Q301	2SD2144STA	TRANSISTOR	1	
Q305,06	2SD1450STA	TRANSISTOR	2	
Q307,08	2SD2144STA	TRANSISTOR	2	
Q309,10	UN4115TA	TRANSISTOR	2	
Q401	2SC3311AIQST	TRANSISTOR	1	
Q503	2SD1450STA	TRANSISTOR	1	
Q551	2SA1995RSTA	TRANSISTOR	1	
Q553	2SD2144STA	TRANSISTOR	1	
Q554	2SA1995RSTA	TRANSISTOR	1	
Q555	2SD2144STA	TRANSISTOR	1	
Q556	2SC5398RSTA	TRANSISTOR	1	
Q557	2SA1995RSTA	TRANSISTOR	1	
Q605	2SC5398RSTA	TRANSISTOR	1	
⚠ Q651	2SB1238QRTV2	TRANSISTOR	1	
Q652	2SD1859QRTV2	TRANSISTOR	1	
Q653	UN4112AITA	TRANSISTOR	1	
Q654	2SD1859QRTV2	TRANSISTOR	1	
Q655	UN4211TA	TRANSISTOR	1	
Q656	2SC5398RSTA	TRANSISTOR	1	
Q657	2SB123AQRTV2	TRANSISTOR	1	
⚠ Q701	2SD2374PQAU	TRANSISTOR	1	
⚠ Q702	2SB1548PQAU	TRANSISTOR	1	
⚠ Q703	2SD2374PQAU	TRANSISTOR	1	
Q704	UN4211TA	TRANSISTOR	1	
Q705	2SA1995RSTA	TRANSISTOR	1	
⚠ Q707	2SB621AQRSTA	TRANSISTOR	1	
⚠ Q708	2SD2137PQTA	TRANSISTOR	1	
Q709	2SD2144STA	TRANSISTOR	1	
Q711	2SB1417PQTA	TRANSISTOR	1	
⚠ Q712	2SB1548PQAU	TRANSISTOR	1	
Q718	UN4111	TRANSISTOR	1	
Q719,20	2SD1450STA	TRANSISTOR	2	
Q721	2SC3311AIQST	TRANSISTOR	1	
Q722	2SA1309AIRTA	TRANSISTOR	1	
⚠ Q723	2SC3940AQSTA	TRANSISTOR	1	
Q724	UN4211TA	TRANSISTOR	1	
⚠ Q725	2SC5398RSTA	TRANSISTOR	1	
Q801,02	2SD1450STA	TRANSISTOR	2	
Q803,04	UN4115TA	TRANSISTOR	2	
Q805,06	2SD1450STA	TRANSISTOR	2	
Q807	UN4115TA	TRANSISTOR	1	
Q808-10	2SD1450STA	TRANSISTOR	3	
⚠ Q811	2SD2137PQTA	TRANSISTOR	1	
Q812,13	UN4115TA	TRANSISTOR	2	
Q814	UN4211TA	TRANSISTOR	1	
Q815,16	2SC3311AIQST	TRANSISTOR	2	
Q901	UN4214TA	TRANSISTOR	1	
Q902-04	2SC3311AIQST	TRANSISTOR	3	
Q906	UN411FTA	TRANSISTOR	1	
R102	ERDS2FJ472	1/4W 4.7K	1	
R103	ERDS2TJ271T	1/4W 270	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R104	ERDS2FJ102	1/4W 1K	1	
R105	ERDS2TJ471T	1/4W 470	1	
R106	ERDS2FJ474	1/4W 470K	1	
R107	ERDS2TJ331T	1/4W 330	1	
R110	ERDS2FJ102	1/4W 1K	1	
R111	ERDS2TJ391T	1/4W 390	1	
R112	ERDS2FJ104	1/4W 100K	1	
R113	ERDS2FJ103	1/4W 10K	1	
R114	ERDS2TJ562	1/4W 5.6K	1	
R115	ERDS2TJ561T	1/4W 560	1	
R116	ERDS2FJ102	1/4W 1K	1	
R117	ERDS2TJ473T	1/4W 47K	1	
R118	ERDS2FJ472	1/4W 4.7K	1	
R119	ERDS2FJ682	1/4W 6.8K	1	
R120	ERDS2TJ473T	1/4W 47K	1	
R121	ERDS2FJ183	1/4W 18K	1	
R122	ERDS2FJ272	1/4W 2.7K	1	
R123	ERDS2TJ683T	1/4W 68K	1	
R124	ERDS2FJ391	1/4W 390	1	
R125,26	ERDS2TJ152T	1/4W 1.5K	2	
R127	ERDS2TJ471T	1/4W 470	1	
R128	ERDS2TJ820T	1/4W 82	1	
R129	ERDS2TJ273T	1/4W 27K	1	
R130	ERDS2FJ103	1/4W 10K	1	
R131	ERDS2FJ680	1/4W 68	1	
R132	ERDS2FJ103	1/4W 10K	1	
R133-37	ERDS2FJ102	1/4W 1K	5	
R138	ERDS2FJ103	1/4W 10K	1	
R141,42	ERDS2FJ102	1/4W 1K	2	
R143	ERDS2TJ223T	1/4W 22K	1	
R145,46	ERDS2FJ104	1/4W 100K	2	
R201,02	ERDS2FJ102	1/4W 1K	2	
R203,04	ERDS2TJ473T	1/4W 47K	2	
R205,06	ERDS2TJ331T	1/4W 330	2	
R207,08	ERDS2TJ271T	1/4W 270	2	
R209,10	ERDS2FJ184	1/4W 180K	2	
R211,12	ERDS2TJ123T	1/4W 12K	2	
R213,14	ERDS2FJ680	1/4W 68	2	
R215,16	ERDS2FJ272	1/4W 2.7K	2	
R217,18	ERDS2FJ392	1/4W 3.9K	2	
R221,22	ERDS2FJ752	1/4W 7.5K	2	
R223,24	ERDS2TJ562	1/4W 5.6K	2	
R225,26	ERDS2FJ104	1/4W 100K	2	
R227,28	ERDS2FJ222	1/4W 2.2K	2	
R229,30	ERDS2FJ102	1/4W 1K	2	
R231,32	ERDS2FJ103	1/4W 10K	2	
R233,34	ERDS2FJ682	1/4W 6.8K	2	
R235,36	ERDS2FJ102	1/4W 1K	2	
R239-42	ERDS2FJ102	1/4W 1K	4	
R243,44	ERDS2TJ152T	1/4W 1.5K	2	
R245,46	ERDS2TJ332T	1/4W 3.3K	2	
R249,50	ERDS2FJ101	1/4W 100	2	
R251	ERDS2FJ222	1/4W 2.2K	1	
R252	ERDS2FJ103	1/4W 10K	1	
R253,54	ERDS2FJ104	1/4W 100K	2	
R255,56	ERDS2TJ123T	1/4W 12K	2	
R257,58	ERDS2TJ562	1/4W 5.6K	2	
R301	ERDS2TJ223T	1/4W 22K	1	
R302	ERDS2FJ472	1/4W 4.7K	1	
R303,04	ERDS2FJ222	1/4W 2.2K	2	
R305,06	ERDS2FJ102	1/4W 1K	2	
R307,08	ERDS2FJ104	1/4W 100K	2	
R309,10	ERDS2FJ102	1/4W 1K	2	
R311,12	ERDS2FJ104	1/4W 100K	2	
R313,14	ERDS2TJ121T	1/4W 120	2	
R315	ERDS2FJ104	1/4W 100K	1	
R316	ERDS2FJ222	1/4W 2.2K	1	
R317	ERDS2FJ105	1/4W 1M	1	
R318	ERDS2TJ153T	1/4W 15K	1	
R319	ERDS2FJ102	1/4W 1K	1	
R321	ERDS2FJ104	1/4W 100K	1	
R322	ERDS2TJ391T	1/4W 390	1	
R323	ERDS2FJ272	1/4W 2.7K	1	
R324	ERDS2TJ223T	1/4W 22K	1	
R325	ERDS2FJ272	1/4W 2.7K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R326	ERDS2TJ332T	1/4W 3.3K	1	
R327	ERDS2FJ392	1/4W 3.9K	1	
R328	ERDS2TJ332T	1/4W 3.3K	1	
R329	ERDS2FJ103	1/4W 10K	1	
R330	ERDS2TJ332T	1/4W 3.3K	1	
R331	ERDS2FJ102	1/4W 1K	1	
R332-34	ERDS2FJ222	1/4W 2.2K	3	
R335,36	ERDS2FJ124	1/4W 120K	2	
R338	ERDS2FJ392	1/4W 3.9K	1	
R341,42	ERDS2FJ222	1/4W 2.2K	2	
R343	ERDS2TJ334T	1/4W 330K	1	
R344,45	ERDS2FJ392	1/4W 3.9K	2	
R353	ERDS2FJ104	1/4W 100K	1	
R354	ERDS2TJ223T	1/4W 22K	1	
R360	ERDS2TJ223T	1/4W 22K	1	
R364	ERDS2FJ103	1/4W 10K	1	
R365	ERDS2TJ223T	1/4W 22K	1	
R371,72	ERDS2TJ394T	1/4W 390K	2	
R373,74	ERDS2FJ224	1/4W 220K	2	
R375,76	ERDS2TJ394T	1/4W 390K	2	
R377,78	ERDS2FJ224	1/4W 220K	2	
R380	ERDS2TJ153T	1/4W 15K	1	
R401,02	ERDS2FJ681	1/4W 680	2	
R403	ERDS2TJ223T	1/4W 22K	1	
R404	ERDS2TJ471T	1/4W 470	1	
R405	ERDS2FJ472	1/4W 4.7K	1	
R406	ERDS2FJ474	1/4W 470K	1	
R407	ERDS2FJ472	1/4W 4.7K	1	
R409	ERDS2FJ472	1/4W 4.7K	1	
R410	ERDS2FJ222	1/4W 2.2K	1	
R411	ERDS2TJ331T	1/4W 330	1	
R412	ERDS2FJ105	1/4W 1M	1	
R415	ERDS2FJ102	1/4W 1K	1	
R416	ERDS2TJ331T	1/4W 330	1	
R421	ERDS2TJ223T	1/4W 22K	1	
R450	ERDS2FJ682	1/4W 6.8K	1	
R451,52	ERDS2TJ223T	1/4W 22K	2	
R453	ERDS2TJ1R0T	1/4W 1	1	
R454	ERDS2FJ103	1/4W 10K	1	
R455	ERDS2TJ223T	1/4W 22K	1	
R456	ERDS2TJ121T	1/4W 120	1	
R457	ERDS2TJ822T	1/4W 8.2K	1	
R458	ERDS2TJ123T	1/4W 12K	1	
R459	ERDS2FJ472	1/4W 4.7K	1	
R460	ERDS2TJ153T	1/4W 15K	1	
R461	ERDS2FJ472	1/4W 4.7K	1	
R462	ERDS2FJ103	1/4W 10K	1	
R463	ERDS2TJ223T	1/4W 22K	1	
R464	ERDS2FJ103	1/4W 10K	1	
R465	ERDS2FJ104	1/4W 100K	1	
R501,02	ERDS2FJ102	1/4W 1K	2	
R503,04	ERDS2TJ333T	1/4W 33K	2	
R505,06	ERDS2TJ123T	1/4W 12K	2	
R507,08	ERDS2TJ332T	1/4W 3.3K	2	
R509-12	ERDS2FJ101	1/4W 100	4	
R513,14	ERDS2FJ472	1/4W 4.7K	2	
⚠ R515	ERG1SJ182	1W 1.8K	1	
R551	ERDS2FJ183	1/4W 18K	1	
R552	ERDS2TJ473T	1/4W 47K	1	
R555	ERDS2TJ223T	1/4W 22K	1	
R556	ERDS2FJ104	1/4W 100K	1	
R557	ERDS2FJ103	1/4W 10K	1	
R558	ERDS2FJ102	1/4W 1K	1	
R559	ERDS2FJ472	1/4W 4.7K	1	
R560,61	ERDS2FJ104	1/4W 100K	2	
R566	ERDS2TJ683T	1/4W 68K	1	
R567	ERG1SJ220	1W 22	1	
R568	ERDS2FJ101	1/4W 100	1	
R569	ERDS2FJ103	1/4W 10K	1	
R570	ERDS2TJ225T	1/4W 2.2M	1	
R591	ERDS2FJ472	1/4W 4.7K	1	
R604,05	ERDS2FJ682	1/4W 6.8K	2	
R613	ERDS2FJ104	1/4W 100K	1	
R614	ERDS2FJ124	1/4W 120K	1	
R615,16	ERDS2TJ182T	1/4W 1.8K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R619,20	ERDS2TJ563T	1/4W 56K	2	
R621	ERDS2TJ273T	1/4W 27K	1	
R622	ERDS2TJ473T	1/4W 47K	1	
R623	ERDS2FJ474	1/4W 470K	1	
R624	ERDS2TJ223T	1/4W 22K	1	
R626	ERDS2TJ154T	1/4W 150K	1	
R627	ERDS2FJ124	1/4W 120K	1	
R628	ERDS2FJ184	1/4W 180K	1	
R629	ERDS2TJ683T	1/4W 68K	1	
R630	ERDS2TJ473T	1/4W 47K	1	
R631	ERDS2FJ224	1/4W 220K	1	
R632	ERDS2TKF5362	1/4W 53.6K	1	
R633	ERDS2TKG5622	1/4W 56.2K	1	
⚠ R634,35	ERDS1FJ272	1/2W 2.7K	2	
⚠ R636	ERDS1FJ561	1/2W 560	1	
R637	ERDS2TJ154T	1/4W 150K	1	
R638	ERDS2TJ684T	1/4W 680K	1	
⚠ R639-46	ERDS1FJ100	1/2W 10	8	
R647	ERD25FVJ2R2T	1/4W 2.2	1	(GN)
R647	ERQ16NKW2R2E	1/6W 2.2	1	(GC)
R648	ERD25FVJ2R2T	1/4W 2.2	1	(GN)
⚠ R648	ERQ16NKW2R2E	1/6W 2.2	1	(GC)
R649,50	ERDS2FJ103	1/4W 10K	2	
R651	ERDS2FJ272	1/4W 2.7K	1	
R652	ERDS2FJ393	1/4W 39K	1	
R653,54	ERDS2FJ272	1/4W 2.7K	2	
R655-58	ERDS2FJ183	1/4W 18K	4	
R659	ERDS2FJ222	1/4W 2.2K	1	
R663	ERDS2TJ154T	1/4W 150K	1	
R665	ERG1SJ682E	1W 6.8K	1	
R666	ERDS2FJ272	1/4W 2.7K	1	
R667	ERDS2TJ331T	1/4W 330	1	
R701,02	ERDS2TJ273T	1/4W 27K	2	
R703,04	ERDS2FJ101	1/4W 100	2	
⚠ R707	ERDS2FJ4R7	1/4W 4.7	1	
R708	ERDS2FJ472	1/4W 4.7K	1	
R712	ERDS2TJ152T	1/4W 1.5K	1	
R713,14	ERDS2TJ332T	1/4W 3.3K	2	
R715	ERDS2FJ183	1/4W 18K	1	
R717	ERDS2TJ473T	1/4W 47K	1	
R719	ERDS2TJ332T	1/4W 3.3K	1	
R720	ERDS2FJ272	1/4W 2.7K	1	
⚠ R721	ERD2FCJ4R7	1/4W 4.7	1	
⚠ R722	ERQ16NKW2R2E	1/6W 2.2	1	
R723	ERDS2TJ562	1/4W 5.6K	1	
R724	ERDS2FJ392	1/4W 3.9K	1	
R725	ERDS2TJ100T	1/4W 10	1	
R727	ERDS2FJ392	1/4W 3.9K	1	
R729	ERDS2TJ221T	1/4W 220	1	
⚠ R735	ERQ16NKW2R2E	1/6W 2.2	1	
R736	ERDS2FJ102	1/4W 1K	1	
R737	ERDS2TJ221T	1/4W 220	1	
R738	ERDS2FJ392	1/4W 3.9K	1	
R739	ERDS2TJ473T	1/4W 47K	1	
R748	ERDS2FJ102	1/4W 1K	1	
R749	ERDS2TJ271T	1/4W 270	1	
R751-54	ERDS2FJ4R7	1/4W 4.7	4	
⚠ R755	ERDS1FJ8R2	1/2W 8.2	1	
⚠ R756	ERDS1FJ4R7	1/2W 4.7	1	
R757-59	ERDS2FJ103	1/4W 10K	3	
R761,62	ERDS2TJ822T	1/4W 8.2K	2	
R763	ERDS2FJ472	1/4W 4.7K	1	
R764	ERDS2TJ331T	1/4W 330	1	
⚠ R765	ERDS1FJ561	1/2W 560	1	
R766	ERDS2FJ102	1/4W 1K	1	
⚠ R767	ERDS2FJ4R7	1/4W 4.7	1	
R768	ERDS2FJ101	1/4W 100	1	
⚠ R791,92	RSFMB30KT-L	PROTECTOR	2	
R801,02	ERDS2FJ393	1/4W 39K	2	
R803,04	ERDS2TJ153T	1/4W 15K	2	
R805	ERDS2TJ433T	1/4W 43K	1	
R806	ERDS2TJ333T	1/4W 33K	1	
R807	ERDS2FJ183	1/4W 18K	1	
R808	ERDS2FJ104	1/4W 100K	1	
R809,10	ERDS2TJ223T	1/4W 22K	2	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R811	ERDS2FJ103	1/4W 10K	1	
R812	ERDS2TJ153T	1/4W 15K	1	
R813,14	ERDS2TJ223T	1/4W 22K	2	
R815,16	ERDS2TJ473T	1/4W 47K	2	
R817	ERDS2TJ332T	1/4W 3.3K	1	
R818	ERDS2TJ153T	1/4W 15K	1	
R819	ERDS2FJ393	1/4W 39K	1	
R820	ERDS2TJ274T	1/4W 270K	1	
R821	ERDS2TJ822T	1/4W 8.2K	1	
R822	ERDS2FJ102	1/4W 1K	1	
R823	ERDS2FJ105	1/4W 1M	1	
R824	ERDS2FJ823	1/4W 82K	1	
R825-27	ERDS2TJ332T	1/4W 3.3K	3	
R828	ERDS2FJ823	1/4W 82K	1	
R829,30	ERDS2TJ223T	1/4W 22K	2	
R831	ERDS2TJ562	1/4W 5.6K	1	
R832	ERDS2FJ222	1/4W 2.2K	1	
R833,34	ERDS2FJ104	1/4W 100K	2	
R835,36	ERDS2FJ222	1/4W 2.2K	2	
R837,38	ERDS2TJ332T	1/4W 3.3K	2	
R839,40	ERDS2FJ102	1/4W 1K	2	
R841	ERDS2FJ103	1/4W 10K	1	
R842	ERDS2FJ104	1/4W 100K	1	
R843,44	ERDS2FJ222	1/4W 2.2K	2	
R845	ERDS2FJ104	1/4W 100K	1	
R846	ERDS2TJ122T	1/4W 1.2K	1	
R847,48	ERDS2FJ472	1/4W 4.7K	2	
R849	ERDS2TJ122T	1/4W 1.2K	1	
R850	ERDS2FJ222	1/4W 2.2K	1	
R851	ERDS2TJ473T	1/4W 47K	1	
R852	ERDS2FJ393	1/4W 39K	1	
R853	ERDS2TJ473T	1/4W 47K	1	
R854	ERDS2FJ393	1/4W 39K	1	
R855	ERDS2FJ104	1/4W 100K	1	
R856,57	ERDS2TJ123T	1/4W 12K	2	
R859,60	ERDS2TJ121T	1/4W 120	2	
R861	ERDS2FJ105	1/4W 1M	1	
R862	ERDS2FJ472	1/4W 4.7K	1	
R863,64	ERDS2FJ105	1/4W 1M	2	
R865	ERDS2FJ102	1/4W 1K	1	
R866,67	ERDS2FJ222	1/4W 2.2K	2	
R868-70	ERDS2FJ102	1/4W 1K	3	
R871,72	ERDS2FJ105	1/4W 1M	2	
⚠ R873	ERD2FCJ4R7	1/4W 4.7	1	
R874	ERDS2FJ104	1/4W 100K	1	
R875	ERDS2FJ102	1/4W 1K	1	
R876	ERDS2FJ224	1/4W 220K	1	
R877,78	ERDS2FJ472	1/4W 4.7K	2	
R879	ERDS2TJ562	1/4W 5.6K	1	
R880,81	ERDS2TJ221T	1/4W 220	2	
R883,84	ERDS2TJ563T	1/4W 56K	2	
R885,86	ERDS2TJ332T	1/4W 3.3K	2	
R887,88	ERDS2FJ222	1/4W 2.2K	2	
R889	ERDS2TJ152T	1/4W 1.5K	1	
R891	ERDS2TJ331T	1/4W 330	1	
R893	ERDS2FJ103	1/4W 10K	1	
R894	ERDS2TJ153T	1/4W 15K	1	
R901	ERDS2TJ821T	1/4W 820	1	
R902	ERDS2FJ102	1/4W 1K	1	
R903	ERDS2TJ122T	1/4W 1.2K	1	
R904	ERDS2TJ152T	1/4W 1.5K	1	
R905	ERDS2TJ182T	1/4W 1.8K	1	
R906	ERDS2FJ222	1/4W 2.2K	1	
R907	ERDS2FJ272	1/4W 2.7K	1	
R908	ERDS2FJ472	1/4W 4.7K	1	
R909	ERDS2FJ682	1/4W 6.8K	1	
R910	ERDS2TJ123T	1/4W 12K	1	
R911	ERDS2TJ223T	1/4W 22K	1	
R912	ERDS2TJ821T	1/4W 820	1	
R919-23	ERDS2FJ103	1/4W 10K	5	
R924-27	ERDS2FJ102	1/4W 1K	4	
R929	ERDS2FJ102	1/4W 1K	1	
R930	ERDS2FJ101	1/4W 100	1	
R931-36	ERDS2FJ102	1/4W 1K	6	
R937	ERDS2TJ562	1/4W 5.6K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R938	ERDS2FJ102	1/4W 1K	1	
R939	ERDS2TJ152T	1/4W 1.5K	1	
R940,41	ERDS2FJ102	1/4W 1K	2	
R942	ERDS2FJ101	1/4W 100	1	
R944	ERDS2TJ223T	1/4W 22K	1	
R946	ERDS2FJ102	1/4W 1K	1	
R947,48	ERDS2FJ104	1/4W 100K	2	
R949	ERDS2FJ472	1/4W 4.7K	1	
R950	ERDS2FJ101	1/4W 100	1	
R951	ERDS2TJ334T	1/4W 330K	1	
R952	ERDS2TJ106T	1/4W 10M	1	
R953	ERDS2FJ101	1/4W 100	1	
R954	ERDS2FJ104	1/4W 100K	1	
R955	ERDS2TJ824T	1/4W 820K	1	
R956-58	ERDS2FJ102	1/4W 1K	3	
R959	ERDS2TJ471T	1/4W 470	1	
R960	ERDS2TJ152T	1/4W 1.5K	1	
R961,62	ERDS2TJ223T	1/4W 22K	2	
R963,64	ERDS2FJ103	1/4W 10K	2	
R965	ERDS2FJ472	1/4W 4.7K	1	
R966	ERDS2FJ103	1/4W 10K	1	
R967	ERDS2TJ473T	1/4W 47K	1	
R968	ERDS2FJ103	1/4W 10K	1	
R969,70	ERDS2FJ472	1/4W 4.7K	2	
R971	ERDS2TJ473T	1/4W 47K	1	
R972	ERDS2TJ223T	1/4W 22K	1	
R974	ERDS2FJ101	1/4W 100	1	
R976	ERDS2TJ223T	1/4W 22K	1	
R977-81	ERDS2FJ104	1/4W 100K	5	
R984,85	ERDS2TJ473T	1/4W 47K	2	
R986-88	ERDS2FJ102	1/4W 1K	3	
R989,90	ERDS2FJ393	1/4W 39K	2	
R991	ERDS2TJ473T	1/4W 47K	1	
R992	ERDS2FJ181	1/4W 180	1	
R993,94	ERDS2FJ104	1/4W 100K	2	
R995	ERDS2FJ181	1/4W 180	1	
R996,97	ERDS2TJ151T	1/4W 150	2	
⚠ RL701	RSY0030-C	RELAY	1	
⚠ S701	ESE37314	SW	1	(GC)
S901-14	EVQPTD05Q	SW	14	
⚠ T501	RTP2N5B010	POWER TRANSFORMER	1	(GN)
⚠ T501	RTP2N5E010	POWER TRANSFORMER	1	(GC)
VR401	EVUE27FK3B53	VR	1	
VR901	EVQVBXFK124B	VR	1	
X102	RLFDFT13DD	OSCILLATOR	1	
X103	RSXC7M20S05T	OSCILLATOR	1	
X801	RSXY8M00M06T	OSCILLATOR	1	
X901	EF0EC6004T4	OSCILLATOR	1	
X902	RSXD32K7S02	OSCILLATOR	1	
Z101	RLA2Z003M-T	COMPONENT COMBINATION	1	
Z102	RLI2Z006M-T	COMPONENT COMBINATION	1	
Z120	RAL0006	FM FRONT END	1	
Z901	RCDGP1U28XD	REMOTE SENSOR	1	

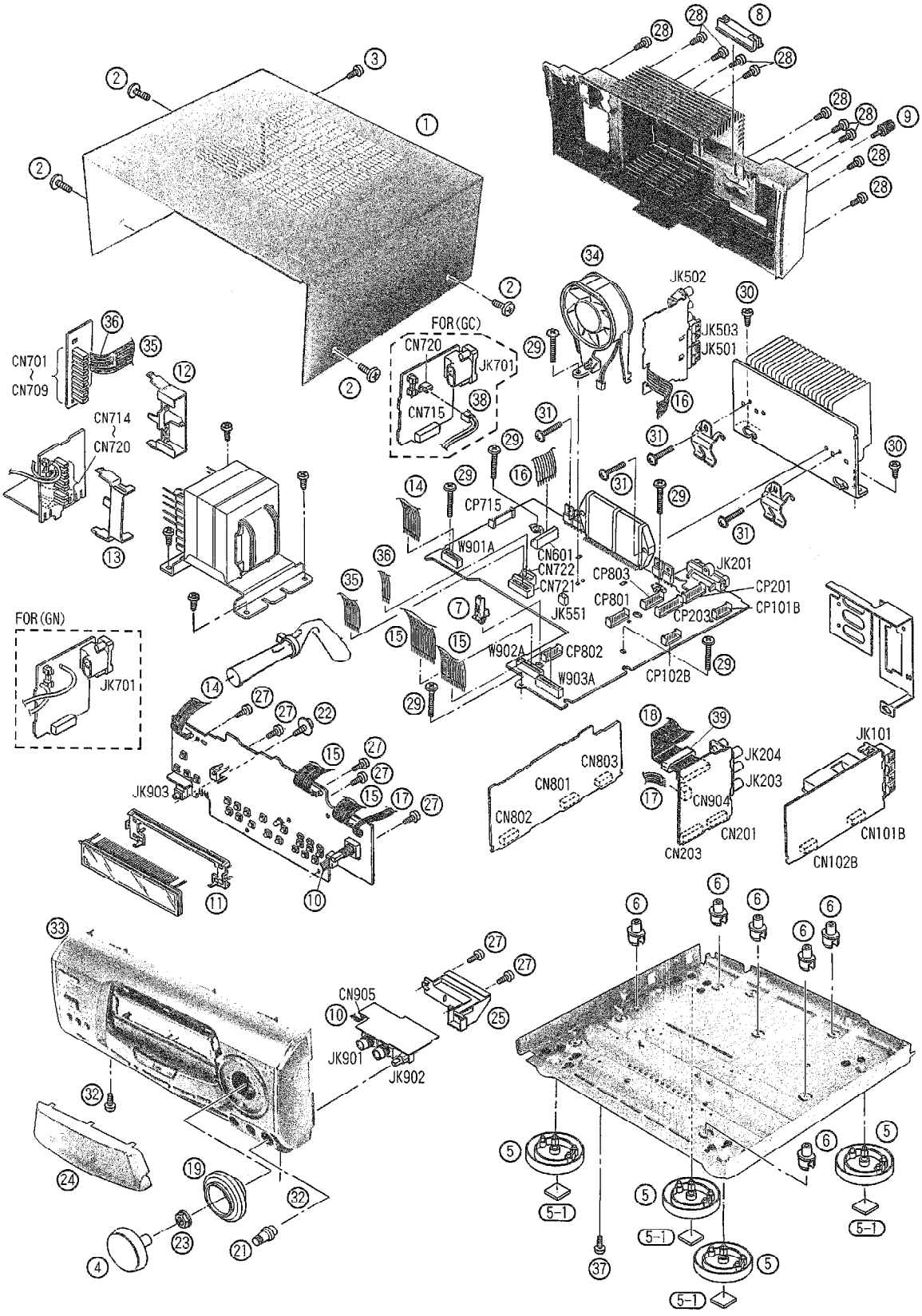
The "<IA> <IB> <IC>" marks in Remarks indicate language of instruction manual.

<IA> : English

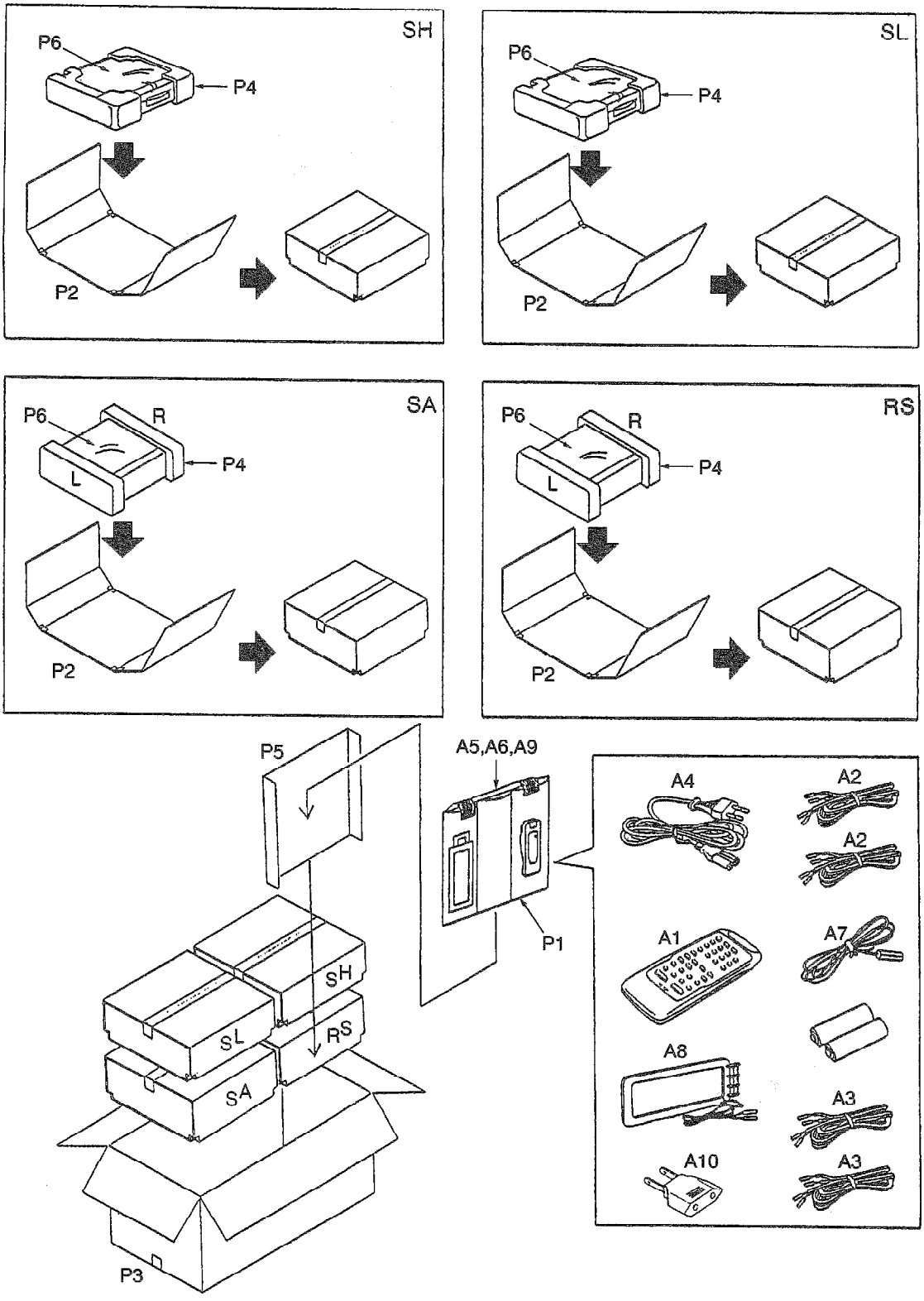
<IB> : English, Chinese, Arabic

<IC> : Spanish

■ Cabinet Parts Location



■ Packaging



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